

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

October 20, 2007

8:04 a.m.

MEMBERS PRESENT

Senator Charlie Huggins, Chair
Senator Bert Stedman, Vice Chair
Senator Lyda Green
Senator Gary Stevens
Senator Bill Wielechowski
Senator Thomas Wagoner
Senator Lesil McGuire

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Senator Kim Elton
Senator Joe Thomas
Senator Lyman Hoffman
Senator Bettye Davis
Senator Johnny Ellis
Representative Les Gara
Representative Jay Ramras

COMMITTEE CALENDAR

SENATE BILL NO. 2001

"An Act relating to the production tax on oil and gas and to conservation surcharges on oil; relating to the issuance of advisory bulletins and the disclosure of certain information relating to the production tax and the sharing between agencies of certain information relating to the production tax and to oil and gas or gas only leases; amending the State Personnel Act to place in the exempt service certain state oil and gas auditors and their immediate supervisors; establishing an oil and gas tax credit fund and authorizing payment from that fund; providing for retroactive application of certain statutory and regulatory provisions relating to the production tax on oil and gas and conservation surcharges on oil; making conforming amendments; and providing for an effective date."

HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 2001

SHORT TITLE: OIL & GAS TAX AMENDMENTS

SPONSOR(S): RULES BY REQUEST OF THE GOVERNOR

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|----------|-----|---------------------------------|
| 10/18/07 | (S) | READ THE FIRST TIME - REFERRALS |
| 10/18/07 | (S) | RES, JUD, FIN |
| 10/19/07 | (S) | RES AT 9:00 AM BUTROVICH 205 |
| 10/19/07 | (S) | HEARD AND HELD |
| 10/19/07 | (S) | MINUTES(RES) |
| 10/20/07 | (S) | RES AT 8:00 AM BUTROVICH 205 |

WITNESS REGISTER

MARCIA DAVIS, Deputy Commissioner

Department of Revenue

PO Box 110400

Juneau, AK 99811-0400

POSITION STATEMENT: Answered questions and participated in the presentation on SB 2001.

KEVIN BROOKS, Deputy Commissioner

Department of Administration

PO Box 110200

Juneau, AK 99811-0200

POSITION STATEMENT: Discussed job classifications and salaries for auditors and answered questions during hearing on SB 2001.

NICKI NEAL, Director

Division of Personnel & Labor Relations

Department of Administration

PO Box 110200

Juneau, AK 99811-0200

POSITION STATEMENT: Discussed job classifications and salaries for auditors and answered questions during hearing on SB 2001.

ROGER MARKS, Economist

Tax Division

Department of Revenue

PO Box 110400

Juneau, AK 99811-0400

POSITION STATEMENT: Gave presentation and answered questions during hearing on SB 2001.

TORSTEN WUCHERPFENNIG, Manager

Asset Valuation

PFC Energy
Houston, TX

POSITION STATEMENT: Gave presentation on government take comparison and answered questions during hearing on SB 2001.

MICHAEL D. WILLIAMS, Chief Economist
Tax Division
Department of Revenue
PO Box 110400

Juneau, AK 99811-0400
POSITION STATEMENT: Gave presentation on case studies and answered questions during hearing on SB 2001.

RICH RUGGIERO

Gaffney, Cline & Associates Inc.

POSITION STATEMENT: Assisted with presentation on case studies and answered questions during hearing on SB 2001.

BOB GEORGE

Gaffney, Cline & Associates Inc.

POSITION STATEMENT: Assisted with presentation on case studies and answered questions during hearing on SB 2001.

KEVIN BANKS, Acting Director
Division of Oil & Gas
Department of Natural Resources
400 Willoughby Avenue
Juneau, AK 99801-1724

POSITION STATEMENT: Answered questions pertaining to SB 2001.

ACTION NARRATIVE

CHAIR CHARLIE HUGGINS called the Senate Resources Standing Committee meeting to order at [8:04:22 AM](#). Present at the call to order were Senators Bert Stedman, Lyda Green, Gary Stevens, Bill Wielechowski, Thomas Wagoner, Lesil McGuire, and Chair Huggins. Also in attendance were Senators Kim Elton, Joe Thomas, Lyman Hoffman, Bettye Davis, and Johnny Ellis, and Representatives Les Gara and Jay Ramras.

SB 2001-OIL & GAS TAX AMENDMENTS

[8:04:32 AM](#)

CHAIR HUGGINS announced consideration of SB 2001. First he asked how many state employees had received overtime pay because the special session began on a holiday.

MARCIA DAVIS, Deputy Commissioner, Department of Revenue (DOR), answered it was one individual.

CHAIR HUGGINS said the legislature had zero, including the staffers who receive a straight salary. Returning to SB 2001, which sets forth Alaska's Clear and Equitable Share (ACES), he asked Kevin Brooks and Nicki Neal to discuss the process of acquiring new, highly qualified auditors.

8:06:34 AM

KEVIN BROOKS, Deputy Commissioner, Department of Administration (DOA), noted there were questions about moving positions from the classified service to the fully exempt service, as contemplated in SB 2001.

CHAIR HUGGINS asked what tools and constraints DOA has when hiring new auditors. He recalled discussion yesterday about possible outsourcing for a time. He also asked what DOA would prefer to do if there weren't constraints.

MR. BROOKS reported that in the past couple of years DOA has looked at generally hard-to-fill state positions and has implemented a market-based pay analysis. Where there is demonstrated recruitment difficulty under certain criteria, DOA surveys how those positions are paid and has adjusted pay for a number of individuals including revenue auditors, whose pay has been raised by two ranges, a 15 percent adjustment; nurses; engineers and architects; and other job families. While this has been effective in some areas, it hasn't been for revenue auditors. It also creates issues if employees earn more than their supervisors; thus a differential can adjust a supervisor's pay. Unanticipated outcomes have been problematic.

MR. BROOKS noted Administrative Order 237 relates to a more holistic look at recruitment and retention. That is an ongoing process, and outcomes haven't yet been seen. Recommendations will go to the governor November 1 from the relevant workgroup; however, none address the immediate needs of DOR and the Department of Natural Resources (DNR) related to these specific auditors. Mr. Brooks recalled there are 17 such auditors in DOR and 6 in DNR. There are 5 vacancies in DOR and 2 in DNR; those positions have been vacant a long time, and there is difficulty in filling them.

MR. BROOKS explained that the bill contemplates that an incumbent in one of these positions would have choice of moving to exempt status or remaining in the classified service. A

number of state professionals are in the exempt service, including investment officers within DOR, medical professionals within the Department of Health & Social Services (DHSS), and entire entities like the Alaska Housing Finance Corporation (AHFC) or the Commercial Fisheries Entry Commission (CFEC). There are political appointees such as himself or Nicki Neal who serve at the pleasure of the commissioner and ultimately the governor. However, many exempt positions are more professional in nature and not political. That was the focus of identifying these revenue auditors.

8:12:11 AM

CHAIR HUGGINS remarked that turnover is turnover regardless of the reason. He asked how much migration occurred with the recent change of administration.

MR. BROOKS gave a rough estimate for DOR: the commissioner, two deputy commissioners, two special assistants, and about 12-15 directors. For DOA, Ms. Neal is new, for example, but he'd retained his job. Mr. Brooks estimated at least two-thirds retained their positions; these are political appointments in that the division directors are the commissioner's office staff. In further response, he agreed to provide a breakdown relating to appointed staff in DOA. However, he highlighted the difference between those positions and the fully exempt professional-type employees who experience far less turnover.

CHAIR HUGGINS asked Mr. Brooks to address the three primary mechanisms for hiring new auditors.

MR. BROOKS answered that 1) they could be hired as they are, as classified employees, although there has been difficulty in filling those positions; 2) they could be made fully exempt, which allows paying whatever the market requires; or 3) those positions could be contracted out.

MR. BROOKS explained that before contracting out a position, the state is required by general government and supervisory union contracts to do a feasibility study to determine if it's more or less expensive than using state employees. For these auditor positions, however, it is already acknowledged that a higher pay rate is necessary. The department cannot pencil out a feasibility study as long as these positions are in the classified service. If they become fully exempt, it provides the option of hiring a person or contracting for a specific period of time or as long as the position is needed. The only

way DOA feels it can have that contracting-out option is if the positions are fully exempt, as contemplated by the legislation.

CHAIR HUGGINS asked whether this would require some negotiation or conversation with the bargaining unit.

MR. BROOKS answered no. Typically, changing an incumbent from a classified position to a partially or fully exempt position requires going before the Personnel Board, and statutory definitions must be met. However, vacant positions don't require such negotiation or discussion.

CHAIR HUGGINS asked what prevents DOA from setting an appropriate pay range for these positions under the classified system. He also asked if legislation can allow this to happen.

8:17:44 AM

NICKI NEAL, Director, Division of Personnel & Labor Relations, Department of Administration, explained that compensation for state employees is based on a threefold process. Considered must be the classification plan; the pay plan; and the compensation schedule, which is created through collective bargaining or statute. The parameters of the state's pay plan are that it must be based on the position classification plan, provide for fair and reasonable compensation for services rendered, and reflect the principle of "like pay for like work."

MS. NEAL continued. Under the statutes that require like pay for like work, DOA sets salaries based on internal alignment. When job families are established such as the revenue and audit group, DOA must ensure their pay is comparable to other levels of responsibility in other job families. Eight factors are considered; DOA has very little flexibility. In 2006 it implemented the market-based pay process mentioned by Mr. Brooks, which allowed flexibility to grant revenue auditors the two-range increase. Other than that, she said DOA has no process in place to increase their salaries beyond that point.

8:19:55 AM

CHAIR HUGGINS asked whether there is a mechanism for the legislature to grant a one-time waiver for a period of time in order to do the adjusting being discussed.

MR. BROOKS answered that the bill contains such a waiver. One challenge for DOA is the inability to be precise. When it bumped the pay for revenue auditors two ranges, for example, it had to address the whole job family and adjust the pay for more

than 60 positions just to get at the targeted group of 23 auditors. Internal auditors in different departments got a two-range increase because DOA's hands were tied. There were also challenges of having subordinates earn more than their supervisors and so on. Thus the bill targets these specific positions and their immediate supervisor.

8:21:23 AM

SENATOR WIELECHOWSKI cited his own experience, noting there is one job classification for hearing officers and a separate one for worker's compensation hearing officers, who are paid less although they do essentially the same job. He proposed perhaps having a special oil and gas auditor position and then a separate classification for others. He also asked whether Mr. Brooks had talked with the bargaining unit about solutions.

MR. BROOKS answered no to the latter, adding that the positions reside within DOR and DNR. He noted the need to deal with it from the executive branch side. As for setting these positions in a separate family, this was tried when DOA did the market-based pay analysis last year. However, statutory criteria don't allow DOA to do that, because of the like pay for like work. While this subgroup of oil and gas revenue auditors has been identified as unique to Alaska's current circumstances, they still fall within that family. Thus the effort last year resulted in an adjustment to about 60 positions. And two ranges, 15 percent, isn't adequate for these auditor positions.

MR. BROOKS returned to Chair Huggins' question, saying he didn't know of a waiver that allows this, other than recognizing the need to pay the market rate for this group of special, highly skilled professionals. He suggested dealing with these circumstances for this period of time and also contracting out as necessary.

CHAIR HUGGINS gave his opinion that folks generally want a hiring process rather than political appointments. He expressed concern about going in the other direction if other mechanisms exist. He also voiced concern that other avenues hadn't been explored adequately yet.

MR. BROOKS pointed out that this proposed process doesn't negate a hiring process. There still will be minimum requirements and selection criteria for these positions.

SENATOR WIELECHOWSKI opined, having been in that situation, that people in these positions shouldn't be able to be fired at the

will of the governor. Highlighting collective bargaining agreements between labor and management, he suggested that DOA sit down with labor to try to work out a solution before turning to the legislature for a statutory change. Many times letters of agreement can be done, for example.

8:27:11 AM

SENATOR McGUIRE voiced confidence that DOA wouldn't come before this committee if they hadn't spent hours thinking about this problem. She opined that it's a thoughtful approach and that there aren't easy answers. These auditors are sought after by huge companies in a world market, and the state wants them to guard the state books and ensure a return on the resource. She suggested being careful.

SENATOR GREEN offered that it's unlikely someone would come in and wipe the slate clean of all these auditors that the state had worked so hard to hire, just because of disagreement with the findings. Noting there are exempt positions throughout government, she surmised there are disagreements daily and yet these people aren't removed from their jobs. She said she isn't as concerned about this as others might be.

8:28:47 AM

SENATOR STEDMAN asked how much money is on the table, not for the auditors themselves but for what they're working on.

MR. BROOKS gave his understanding that it is billions of dollars.

SENATOR STEDMAN highlighted the need for a policy discussion on whether the state needs help from an international accounting firm as it gears up its internal auditing system; this needs to occur before he'll seriously consider opening up these parameters to the administration with respect to having it be completely internal. When hiring, the state will be up against three of the most sophisticated international oil companies in the world, and must be on equal footing as much as possible. He emphasized that all available methods should be used to protect the state's interests, even if it costs more to hire outside help while getting up to speed, especially considering the hundreds of millions or billions of dollars on the table.

MR. BROOKS said he believes this is exactly the goal of this section of the bill. It provides tools to put the state on an equal footing.

[8:31:09 AM](#)

MS. NEAL returned to Senator Wielechowski's concerns. She said DOA is always in communication with the collective bargaining representatives. However, in this case the classification process isn't bargained with them; it isn't a mandatory subject of bargaining. Part of the range-assignment and salary-assignment process is through the classification process. This isn't something DOA bargains with the unions, although it does bargain cost-of-living increases and increases to the salary schedule. Her division has responsibility outside of that process to make range assignments. But because DOA doesn't negotiate on that topic, it hasn't attempted to negotiate with the unions on increasing the ranges of these auditors.

SENATOR WIELECHOWSKI gave his understanding that the union or DOA could request a unilateral range reclassification, even yearly.

MS. NEAL affirmed that.

SENATOR WIELECHOWSKI suggested a range reclassification could be done in this case.

MS. NEAL replied that DOA does reclassify positions regularly, but within its reclassification plan. If DOA just made the auditors Range 28 or 29, it wouldn't comply with the statutes on like pay for like work when compared with other job class families.

SENATOR WIELECHOWSKI asked: What if the desire is to set up different job classifications, making oil and gas auditors one position and others another position?

MS. NEAL answered there are separate job classes currently for oil and gas auditors. However, DOA must look at the eight factors. When compared with other positions that contain those same or similar factors as far as level of growth, responsibility, and so on, they must be paid comparably. So that's what DOA has done.

CHAIR HUGGINS welcomed Senator Elton.

[8:34:03 AM](#)

SENATOR WAGONER asked how many levels of auditors are within the classification system.

MS. NEAL specified that for the oil and gas revenue auditors there are four levels.

SENATOR WAGONER asked: Then why are we looking at the ACES clause that allows the hiring of auditors without creating another class? He said these people supposedly have a skill level higher than that of other oil and gas auditors on staff. Senator Wagoner added that he didn't understand the problem, and it seemed there should be enough flexibility to create a higher classification for these auditors without tipping over the ship.

MS. NEAL agreed if the level of work is higher, the state should be able to set a higher change. Highlighting the need for further discussion with DOR in order to make a determination, she gave her understanding that the nature of the work doesn't differ significantly from that of the other auditors. In response to Senator Wielechowski, she clarified that the eight factors she'd referenced are found in the Alaska Administrative Manual; she agreed to provide that section to him.

CHAIR HUGGINS thanked the testifiers. He called upon Marcia Davis, deputy commissioner of DOR.

8:37:05 AM

MS. DAVIS informed members that today's topic would be Alaska's global competitiveness. In looking at production tax levels, an important question is how a change will affect Alaska's ability to compete with other jurisdictions for investment dollars. In response to Chair Huggins, she said the relevant handouts were one showing ACES on the front, which says it was updated 10-04-07, and one from PFC Energy, "Government Take Comparison," by Torsten Wucherpfennig, dated 20 October 2007.

MS. DAVIS noted today's presentation would be in three sections. First, Roger Marks of DOR would explain government take, address metrics and which were selected, and give an overview of the two models developed internally and through consultants. Noting Dr. Pedro van Meurs and Daniel Johnston had expressed concern about what they saw the last go-around, Ms. Davis highlighted ensuring that comparisons are done on the proper basis for either new development or mature fields with respect to government take. Mr. Marks also would discuss the side-by-side comparison requested yesterday that shows the economic pieces of PPT - the current law, known as the petroleum production tax or petroleum profits tax - and ACES. This is shown as page 2, "Aces vs. PPT Schematic," in the first handout.

MS. DAVIS said, second, Mr. Wucherpfennig would present modeling; he'd analyzed projects worldwide and could provide good comparable information. Third, the wrap-up would narrow the focus to peer-group countries believed comparable to Alaska in order to understand which elements of the tax structure are drivers or important in industry's view. This would give a sense of large or minor effects from proposed changes.

[8:41:31 AM](#)

ROGER MARKS, Economist, Tax Division, Department of Revenue, told members the next two days will begin to address the economics of ACES. He would explain the mechanics of the bill and how it differs from PPT in how the tax is calculated. This is at a high level; details are in the sectional analysis.

MR. MARKS showed slide 2, duplicated in the ACES handout. Elaborating on the side-by-side comparison, he said this shows the Alaska North Slope (ANS) West Coast price; subtracted are the shipping and the pipeline tariffs, which gives the gross value at the point of production. If taxing the gross, this is what is being talked about. The West Coast price less the shipping is sometimes called the wellhead value or the value of the oil at the lease boundary. Under both PPT and ACES, subtracted are the upstream costs - capital costs and operating costs that occur at the field to produce the oil. For capital costs, there is a 30-cent reduction per barrel in what can be deducted, to cover the corrosion issue.

MR. MARKS continued. He said the gross value less the upstream costs leaves net income. Under PPT, the basic tax rate is 22.5 percent of net income. Under ACES, that rises to 25 percent. Each is modeled at \$60 ANS West Coast price, as if both were in effect for the entire fiscal year 2008 (FY 08). The proposed effective date for ACES is January 1, 2008, mid-FY 08. But this model provides an apples-to-apples comparison.

MR. MARKS said the 2.5 percent difference at \$60 ANS West Coast price would be about \$200 million if in effect the entire fiscal year. Once the base tax rate is calculated, a progressivity surcharge raises the tax rate, depending on the per-barrel net-income value. Under PPT, if that value is over \$40 a barrel, for every dollar over \$40 the basic rate increases by 0.25 percent. Under ACES, the "kicker" - the price at which progressivity starts, based on the per-barrel net income - is reduced to \$30.

[8:46:05 AM](#)

SENATOR MCGUIRE asked why that percentage is being reduced, since it had been debated extensively.

MS. DAVIS answered that going from 0.25 to 0.20 percent was made late in DOR's analysis of various economic "knobs." As they ran each model against new-field and existing-field development, they looked at where it yielded the results to be presented tomorrow, which will address how attractive those look to industry from a net-present-value standpoint. As DOR got more aggressive with the rate and trigger price, tradeoffs were observed. As diminishment of net present value was seen to the industry, the knob that could be turned to give a slight upward change was the slope. Once they put in the 10 percent gross-tax floor, they needed to give something back into the economic system to make that balance a little fairer over time. That was one call made.

MS. DAVIS acknowledged it looks counterintuitive, but said when turning the larger knobs more strongly in the direction of the state, they needed to fine-tune a few things. This was one. With the gross tax floor, there was a larger cut being taken of the main base revenue. And the slope slowed down at least the take from the top, across the progressivity and across moneys that were coming in at high prices. It's a balancing of the pluses and minuses for the variables.

SENATOR MCGUIRE called this a point of big debate, saying personally she'd rather see the floor out and 25 percent.

SENATOR STEDMAN asked to be shown the impact of progressivity changes over multiple price and volume changes at some point. He recalled that a concern when looking at the original PPT bill was the effect of the government-take percentage. He also recalled that the legislature faced the balancing with respect to the so-called knobs when setting the rate at 22.5 and setting the progressivity. He highlighted how interconnected these are.

CHAIR HUGGINS remarked he'd rather look at the models, but mentioned a stepped approach to the progressivity and the price increases, and the need to see what that means to Alaskans and to the revenue, as well as to the producers.

MS. DAVIS agreed that an analytical, methodical approach is a good way to see each piece and its impact.

[8:50:36 AM](#)

SENATOR STEDMAN recognized this as the beginning and a long view, but asked that DOR look at rearranging how it is laid out. This shows the upstream capital costs coming out before the operating costs. For the models and numerics, he'd like to see the operating costs come out before the capital expenditures, and to have the operating costs singled out. They will be looking at historic real values and projections. As the industry changes due to price changes and capital costs, for instance, legislators will want to take those into account.

SENATOR STEDMAN also requested that DOR take the 30 cents out, or at least have it line-itemed in the capital costs so it can be isolated. For the slides, he asked that DOR note what is being dealt with, with respect to production and dollar values, in order to see where the dollar values come from. There is a need to clarify whether they're talking about pre-credit or net dollars coming into the treasury. Otherwise, it would be confusing.

MS. DAVIS agreed those would be good clarifications.

[8:53:38 AM](#)

MR. MARKS returned to the presentation. With the changes on progressivity mechanics, he said another \$200 million is added to FY 08 revenues under the proposal. Then once there is the base income and progressivity surcharge, the tax payment is reduced by a series of credits; there are five major ones, and a change is proposed only for the transition credits under subsection .023(i).

MR. MARKS outlined the credits in AS 43.55. Under .023(a), 20 percent of the capital expenditures is a credit; the 30 cents a barrel is subtracted from that. With the net operating loss credits under .023(b), 25 percent of a net operating loss can be converted to a credit and monetized immediately or over two years; this is intended to increase the net present value to investors that don't have income with which to offset losses for new projects. Proposed for elimination are the transition credits under .023(i); those recognize past spending between years 2001 and 2006.

MR. MARKS, in response to questions, noted the aforementioned has been called the claw back. It is estimated its removal gives another \$200 million in FY 08. The small-producer credits under AS 43.55.024 are for producers that produce 50,000 barrels a day or less in Alaska; they get a \$12 million credit, throttled back as production rises to between 50,000 and 100,000

barrels a day, and going to zero if it's over 100,000 a day. Finally, some changes are proposed to the exploration credits under AS 43.55.025 in order to cover delineation wells; the impact hasn't been estimated yet. The bottom line is this: At \$60 ANS, under PPT the state gets an estimated \$1.4 billion from production tax. Under ACES it is about \$2 billion - \$600 million more.

SENATOR WAGONER remarked that he'd called the transitional credits a kickback and had been dead set against them until the legislature came up with the two-for-one formula. He asked what results were seen from it.

MR. MARKS answered it was quite significant, \$200 million or more. Under PPT, the state's exposure to capital costs isn't trivial. Deductions for capital costs and credits amount to 42.5 percent of the state's exposure to spending, and transitional investment expenditures (TIE) credits add another 10 percent. One reason it is proposed for elimination is to reduce the state's exposure to high costs. Also, there is a philosophical issue as to whether it is appropriate to give credits for past spending.

MS. DAVIS corrected yesterday's testimony. While she'd said the TIE credits so far totaled \$45 million, it was actually \$114 million in the first year for credits claimed. She offered her understanding that DOR staff had been surprised by this. The number was a lot larger than expected. As for the two-for-one, if moneys were spent in reliance upon taking that credit, DOR isn't necessarily seeing a result in terms of production and so forth; it is potentially too early. Even if that were seen and compared with the TIE credits, DOR also doesn't know to what extent those same investments would have been incentivized simply through the 20 percent capital-credit program or some other program.

SENATOR WAGONER surmised whatever happened between when PPT went into effect and the time when those credits were taken would have happened anyway; those capital items would've been on order and in the process of being built or shipped.

[8:59:47 AM](#)

SENATOR WIELECHOWSKI requested an explanation of the various credits, noting he hadn't been a legislator last year.

MR. MARKS explained that AS 43.55.023(a) is a capital credit. If someone spends \$1 million in capital spending, a credit is given for 20 percent of that - a \$200,000 reduction in tax.

SENATOR WIELECHOWSKI asked whether that is for exploration or could also be maintenance on the pipe, for instance.

MR. MARKS specified it's all capital expenditures as defined by the Internal Revenue Service (IRS) code.

SENATOR WIELECHOWSKI surmised this doesn't necessarily encourage exploration.

MS. DAVIS concurred, saying it could be replacing a bit of equipment, maintaining existing production, or anything that qualifies as a capital expense under the IRS code.

MR. MARKS indicated AS 43.55.025 is the exploration incentive credit. If capital costs are incurred for exploration, a company may take a credit under either .025 or .023(a), but not both. So there is quite a bit of capital involved in exploration as well.

SENATOR WIELECHOWSKI asked how much the exploration credit is worth.

MR. MARKS answered it depends. Under the current rule, depending on the distance from other current down-hole wells, it is either 20 or 40 percent.

SENATOR STEDMAN recalled that the finance committee, in considering the Alaska Gasline Inducement Act (AGIA), had asked the DNR commissioner to relate all credits available to the industry. Hence there is a letter from DNR laying that out, which Senator Stedman offered to provide to this committee.

SENATOR STEDMAN returned to the transition credits, saying those calculations had been run with "look-backs" of five years and a two-for-one impact. He requested that this be brought forward for the committee to look at projections of the following: what was being viewed at the time, what was claimed, and the marginal difference and why there would be any difference. Since many were "sunk" costs, he surmised the estimate should have been fairly close. He suggested there would be a lot of denials through the auditing process of this \$114 million.

MR. MARKS noted costs would be discussed tomorrow, including why actual costs differed from estimates. The estimates of past spending were fairly good, only about 15 percent off; given the big picture, the department doesn't believe this is too bad. For expenditures between 2001 and 2006, however, because of how the two-for-one works and the high costs now, those past expenditures are being recovered faster. Through the TIE mechanism, companies cannot recover more than they spent for 2001-2006. The TIE credit expires in 2013. So the high costs seen last year means they're recovering those past costs faster.

SENATOR STEDMAN remarked that the credit wasn't included in PPT as charity from Alaskans to the industry. Rather, it was to make it more expensive for industry to take net income out of the state - to encourage reinvestment into the fields and to preferably stop the decline in production due to the coming fiscal gap three or four years out, which has been cushioned for, and the time of first gas. There will be a revenue shortfall, as seen yesterday on the projections. The effort is to stimulate the "oil patch" - and particularly the Arctic - by putting economic gas on the fire. Senator Stedman predicted that every year the department will be asked to come before the committee and talk about capital expenditures in the Arctic and whether the desired results are being achieved.

MS. DAVIS agreed this isn't something the legislature does and then walks away from. It should be monitored to ensure the pieces are performing as recommended and intended. Part of the motivation to get heightened information is to provide the legislature with information so it can determine whether there is new investment.

SENATOR STEDMAN added that now is the time to stimulate the Arctic. It won't be the time in four or five years, when there are revenue shortfalls. Now there are revenue surpluses, so now is the time to take the hits on the net income with the credits, trying to drive the industry forward.

SENATOR WAGONER recalled discussion during hearings on PPT about a way to keep companies from purchasing capital equipment, warehousing it in Alaska, taking the credit, and then moving it elsewhere. He asked whether Mr. Marks recalled that, noting he wasn't sure anything was included in the PPT legislation to prohibit it.

SENATOR STEDMAN recalled this was a concern, as was gold plating. He suggested researching what has occurred.

SENATOR WAGONER surmised the only way to figure out whether such a thing has happened is through the audit process.

MS. DAVIS affirmed that.

SENATOR WAGONER gave his understanding that this would entail auditing massive inventory sheets.

MS. DAVIS agreed, as part of the audit process, that clearly a spread of high-ticket items would be targeted, with an eye toward whether there'd been a pattern of that kind of conduct.

SENATOR McGUIRE suggested this falls under what was discussed yesterday, the new regulations and authority being given to DOR to set out what types of expenditures will be allowed.

MS. DAVIS replied that, clearly, in the definition of a leasehold expenditure, they'd be looking for what is directly used in development and operation of the oil and gas lease. If something had been purchased but clearly was surplus, for example, the argument would be that this class wouldn't be included unless and until it was placed in service.

9:10:02 AM

SENATOR WIELECHOWSKI recalled that Dr. van Meurs had said in some places Alaska has exploration credits of 60, 70, or 80 percent. He requested Ms. Davis's opinion.

MS. DAVIS explained that in terms of exploration credits, some are additive. She opined that the maximum exploration credit is 40 percent; there is also a 20 percent capital credit, although the same expenses cannot be used for both. So that is 60 percent. In addition, if there are operating properties at the same time a company is doing exploration - with deductions for operating expenditures (OPEX) and capital expenditures (CAPEX) against the current tax rate of 22.5 percent - large percentages would be seen. So in an extreme case, where a company is fully engaged with operations and explorations, there could be roughly 82.5 percent in offset associated with a large project.

SENATOR WIELECHOWSKI gave his understanding that an old law on the books also allows some credits. He asked if anyone had looked at whether it is in Alaska's best interests to have an 82.5 percent credit for some of these fields.

MS. DAVIS pointed out that the example she'd given is probably the most extreme. She wasn't sure if anyone had actually put all those levers into motion at the same time; if so, that company would be highly active and investing lots of money. Right now, in terms of the analysis when looking at the exploration process, the tendency is to look at new entrants. However, the foregoing example would be an existing player that is also aggressively doing other operations. She emphasized that each piece is designed to deliver the associated production value to the state; the exception is capital costs, which may or may not be directly tied to creating production.

MS. DAVIS added that exploration gives probably the biggest bang for the buck as far as actually creating new production - bringing on new fields. So the state certainly doesn't want to give short shrift on the exploration side. If people were concerned about overcompensating, they'd be looking at the capital credits and the OPEX items associated with existing status quo production. One reason the administration has expanded the exploration piece is because, as Senator Stedman said, now is the time to take state dollars and target them towards places that will bring in new production.

SENATOR WIELECHOWSKI asked whether Ms. Davis would disagree with Dr. van Meurs' opinion that it only needs to be a 20 percent exploration credit.

MS. DAVIS affirmed that she would disagree.

[9:13:59 AM](#)

CHAIR HUGGINS welcomed Senator Thomas, noting he'd been present for some time.

CHAIR HUGGINS referred to deductions and credits and more than \$100 million relating to AS 43.55.023. He asked whether that also can be done with AS 43.55.025, the exploration credit.

MS. DAVIS said there are estimates, although she couldn't provide the numbers. There would be a separate presentation by DNR; that is the department explorers come to, and thus DNR is in the best position to let DOR know what is being driven by AS 43.55.025 and what is behind the desire to expand it.

MS. DAVIS further explained that right now some of the activity may be beginning that is associated with AS 43.55.025, as people look for the coming drilling season. Clearly, they're doing it in contemplation of the credits. Before PPT, the 20 percent and

40 percent exploration credits were in place. But now they're actually transferable and can be monetized in the near term. This is the "kicker" that PPT has provided to explorers to date.

MR. MARKS specified that the discussion today has related to AS 43.55.023, AS 43.55.024, and AS 43.55.025.

SENATOR STEDMAN noted AS 43.55.024 relates to small producers.

MS. DAVIS, in response to Chair Huggins, clarified that the existing net tax isn't being supplanted with a brand-new net tax in this legislation. The net tax is retained, but the gross tax floor is being amplified.

CHAIR HUGGINS characterized it as retaining the architecture of PPT but doing some amendments.

MS. DAVIS affirmed that.

SENATOR WIELECHOWSKI asked what "NOL" and "transition" refer to on slide 2.

MR. MARKS answered that NOL is net operating loss. As PPT and ACES are structured, the desire is to boost the net present value of projects to producers; having more money up front does this. Under most tax codes, including that for the IRS, a loss is carried forward to the next year, until there is offsetting income; then the costs are monetized. Under the NOL mechanism in PPT, if a producer has a net operating loss because it has no other offsetting income - for example, when the company is a new, small producer - the company can multiply that loss by 20 percent and then get a credit. Thus it can monetize the loss very soon, boosting the net present value.

MR. MARKS turned to "transition." He explained that when a company invests today, it gets oil down the road. When PPT was put into place in 2006, some felt those who were producers between 2001 and 2006, had they known PPT was coming and they could get credits for expenditures, might have deferred those until PPT was put into place. The philosophy of the TIE credits was to offset that. Some thought this was appropriate, whereas others didn't. In further response, Mr. Marks said these aren't retroactive, but represent retroactive expenditures.

SENATOR WIELECHOWSKI noted this has been called the claw back. He surmised this is being eliminated under ACES.

MR. MARKS affirmed that.

SENATOR STEDMAN recalled that the discussion also had revolved around tax-related conditions when capital budget decisions were made. The new tax regime would elevate government take. There had been discussion about fairness, since capital budget decisions had been made under the economic limit factor (ELF) regime, but by the time things were built and fully implemented they'd be under PPT. Thus there was a desire to balance that and also deal with Cook Inlet and the major producers. He suggested the need to bring new legislators up to speed on this.

CHAIR HUGGINS asked whether the testifiers agreed NOL is a powerful tool for the state with respect to future production.

MR. MARKS said its net-present-value benefits are material.

MS. DAVIS concurred.

SENATOR WIELECHOWSKI agreed, noting the need to encourage new producers. He recalled hearing that access to facilities is very difficult for new producers. He asked whether changes in ACES relating to such access have been explored.

[9:22:59 AM](#)

MS. DAVIS agreed that facilities access is an important piece of the overall puzzle. However, this bill addresses the tax structure. If the legislature wants to address facilities access, it must be in separate legislation, probably involving DNR, which does facility approvals, permitting for the lands, and so forth; then it becomes a policy decision about regulating surface facilities, environmental impacts, et cetera. How to regulate infrastructure on state lands is a completely different body of law than what is done with the tax system.

SENATOR WIELECHOWSKI asked whether it would significantly encourage investment in Alaska if it were easier for smaller producers to have facilities access.

MS. DAVIS answered that clearly it is a highly important economic consideration for someone coming in and investing a lot of money in resource development.

CHAIR HUGGINS indicated this committee had just given DOR warning that there will be such a conversation. He said it's an important conversation that shouldn't be deferred too long.

SENATOR McGUIRE returned to slide 2. Recalling that Ms. Davis would present some modeling tomorrow or the next day on the progressivity surcharge, Senator McGuire asked to see the 0.25 percent at \$30.

CHAIR HUGGINS welcomed Senator Hoffman.

9:25:48 AM

MR. MARKS turned to slide 3, discussing what has changed between PPT and ACES with respect to how the floor mechanism works. Under PPT, the floor is the higher of the PPT net tax payment or - depending on the West Coast price of oil - a percentage of gross income. At West Coast prices of \$25 or above, it is 4 percent of gross income. How the credits interact with the floor is complicated, so that is left to the sectional analysis.

MR. MARKS related that under ACES, the floor mechanism is limited to units that have cumulatively produced more than 1 billion barrels of oil and are currently producing over 100,000 barrels a day - basically, the Prudhoe Bay Unit and the Kuparuk River Unit. The floor is the higher of the ACES net tax payment or 10 percent of the gross value at the point of production. Again, how the credits interact is complicated and is left to the sectional analysis. That is the ACES proposal.

The committee took an at-ease from 9:27:40 AM to 9:49:36 AM.

MR. MARKS shifted focus to a fair share for the government, what it means, and how it is viewed. Elaborating on slides 4 and 5, he said some new approaches have been taken; he would explain why these are believed to be sound. A sound fiscal system needs to be a balance between the interests of the government and investors. The latter need competitive returns. Tomorrow there would be discussion of how ACES affects the investor side. Today there would be discussion of how ACES impacts the fair government share. This is the goal with the fiscal system.

MR. MARKS said the world is competitive, and investors can put their money in a variety of places. Generally, fair share means the government gets the portion of the value of the projects relative to what other governments get, commensurate with business risks in those countries. For example, Angola has spectacular geology but is politically unstable. Business risk for investors includes relative costs, geology, government take, fiscal stability, and so forth. Not all are weighted evenly. The investment community seems to put a premium on geology - how much oil can be obtained.

MR. MARKS continued. He said although Angola takes a much higher share of the project value, it can do that. And even though Angola is less politically stable, investors are willing to put up with a lot to do business there. It wouldn't be appropriate for Alaska to compare itself with Angola in measuring how much of the project the state should get. It needs to be relative to the business risks. Later today Dr. Williams, DOR's chief economist, would discuss Alaska's relative business risks and what jurisdictions he believes Alaska should compete with.

[9:53:01 AM](#)

MR. MARKS turned to metrics, the next principle with respect to fair share. He described metrics as the statistics to measure whether or not the government is getting an appropriate amount of the value of the project. Since it is a comparability concept, it needs to be an objective measurement that can be systematically compared with other jurisdictions.

MR. MARKS addressed the final principle: New fields are different from legacy or mature fields in measuring fair share to government. For a new field there is investment and recovery of oil over its entire life, a forward-looking concept. For midlife legacy fields, however, the life-cycle concept doesn't apply. In addition, individual years cannot be looked at. First money is spent and then the fruits of the investment come.

[9:54:37 AM](#)

CHAIR HUGGINS requested an estimated time to get to first oil in a medium scenario.

MR. MARKS replied it varies. Ten years wouldn't be unreasonable. He reiterated that individual years cannot be looked at for legacy fields to measure fair share, because it won't give a representative picture of what the government is getting. In addition, investment decisions are based on forward-looking economics. If he'd spent \$1 billion years ago and was evaluating whether to spend \$1 billion now, the only question would be whether it makes sense to spend it going forward. Accordingly, ACES is viewed as a way to promote investment. Looking at the past isn't appropriate in terms of decisions that will be made in the future.

CHAIR HUGGINS welcomed Senator Davis.

MR. MARKS discussed new fields. Showing slide 6, he said for new fields all costs, revenues, and activity are prospective. The concept of government take can be used, and the entire life of the project is looked at. "Take" means the percentage of economic rent going to government - gross revenues less the cost; this pretax income is sometimes called visible income. Many economists, when measuring this rent, discount the numbers because the timing of government revenues matters both to the investor and to the government. Getting \$1 billion now and zero ten years from now is much different from the reverse. So the numbers are discounted at 10 percent, believed to be the current cost of capital in making investment decisions.

MR. MARKS pointed out that many fiscal systems, including Alaska's, have some front-end-loaded elements, royalty and property tax in particular; those are paid before any costs are recovered. Discounting results in higher government take. However, most numbers that people have been looking at over the past few years are undiscounted. The numbers he would present are higher than presented before; discounting is one reason.

[9:58:37 AM](#)

MR. MARKS turned to slide 7. He said legacy fields are much different. The costs have already been incurred, and measurements that look at cash flow in a single year can be deceptive. Large costs are often incurred in discrete timeframes, though even in mature fields there is ongoing investment. A single year cannot depict the economic picture. If \$1 billion is spent now and \$1 million is received next year but only the latter is looked at, it doesn't give an accurate picture. Furthermore, comparing one year with other international situations could be deceptive. He cited Prudhoe Bay as an example where money has been spent for 40 years.

MR. MARKS showed slide 8, "Legacy Fields: Marginal Tax Rate." He explained that in trying to measure fair share, DOR looks at the marginal tax rate (MTR) or incremental dollar going to the government. This is derived by taking a price - say, \$60 - and looking at the total per-barrel amount going to the government: property tax, royalty, production tax, and state corporate income tax, and also federal corporate income tax, since the investor doesn't care whether the money is paid to the federal government or the state. Then the price is increased \$1 without changing costs. The MTR is the difference between how much goes to government at that price versus the previous price.

MR. MARKS said people have asked DOR what share Alaska received in a particular year - a number based on cash flow in a single year. While DOR has been giving out this number, it doesn't like to. Measuring the share based on a single year can ignore the situation he'd described. He indicated DOR prefers the MTR for mature fields and the take figure for new fields.

CHAIR HUGGINS observed that many people ask whether what is proposed is premature because the state is looking at only one year, since PPT has existed only that long.

[10:02:55 AM](#)

MR. MARKS turned to slide 9, leading into the presentation by Torsten Wucherpennig, who'd been asked to look at worldwide government take for new fields and MTR for existing fields. Mr. Marks said the focus has been on Alaska's relevant competition or peer group. In this regard, the world is organized in a fairly orderly manner.

MR. MARKS told members that governments collect revenues in two ways: under a tax/royalty regime or using a production sharing contract (PSC). Tax/royalty regimes exist in Western developed countries with stable, democratic governments and diverse economies; the state-administered taxes are broad-based, generally applying to everyone, though there are exceptions. By contrast, PSCs occur in developing countries with less stable governments. The fiscal system is administered by contract, since other revenue-collecting strategies may be shaky. These jurisdictions generally have oil-centered economies and better geology. The contracts are negotiated between the government and an oil company, field by field.

SENATOR STEDMAN recalled testimony that tax/royalty regimes coincided with earlier oil development, whereas PSCs surfaced with later development when folks started looking outside of North America.

[10:06:07 AM](#)

MS. DAVIS concurred in general, but said tax/royalty regimes were found in South America and Europe as well; Dr. Williams would provide a map. In further response, she said early oil tended to be in more developed, Old World countries, where the oil companies were born. As those resources have been used up, they've stepped out to developing nations that have the remaining oil. Thus these large, exciting prospects are suddenly coming to market and companies are increasingly dealing with PSC arrangements. She surmised this oil remains partly

because there have been risks in developing it, compared with Old World jurisdictions.

10:07:39 AM

SENATOR STEDMAN asked whether tax/royalty systems are more regressive than PSC arrangements.

MS. DAVIS replied not necessarily, as far as a net system being progressive. Even among tax/royalty systems, the world is essentially doing it on a net basis. The United States is one of the exceptions, having a gross-based system. In further response, she said PSC arrangements largely have been structured to be very progressive: companies generally can recover costs on the upfront side in exchange for much larger shares to the government once costs are recovered. Compared with tax/royalty systems, PSC arrangements probably have more flexibility to get that kind of structure.

10:09:03 AM

SENATOR STEDMAN clarified that progressive means the government share increases as the price increases to a specific range. Regressive - in terms of percentage, not dollars - means government take declines as prices rise.

MS. DAVIS added that production sharing agreements (PSAs) frequently link to price as well; there is an ability to negotiate more progressive features for specific fields or structures. Old World tax/royalty systems must come in later to build in features that are more progressive and that make them more responsive. This was what Alaska attempted with PPT by adding a progressivity factor and allowing net offsets of real costs and so forth.

SENATOR WIELECHOWSKI surmised in a tax/royalty system a company would come in, pay a royalty percentage, and then be allowed to produce. Once there was production, it would pay production tax. This is like what Alaska has now.

MS. DAVIS affirmed that. She further explained that a PSC involves having a contract between a government and a private party, an oil company. It typically focuses on a field, a specific development. The company agrees to certain conduct including the level, timing, and scope of development; it may go beyond oil development and relate to contributing infrastructure or making contributions to aspects of the government. In turn, the government provides specific terms as to how the costs, revenue, and product will be shared - all the elements currently

covered by the State of Alaska through royalty, property tax, and the tax system in separate bodies of law. This contract is a one-package deal.

10:12:24 AM

TORSTEN WUCHERPFENNIG, Manager, Asset Valuation, PFC Energy, indicated such contracts and agreements have a tendency to be more progressive, whereas tax/royalty systems indeed are digressive or regressive as oil prices increase. The royalty portion is responsible for that.

SENATOR WIELECHOWSKI surmised PSCs aren't necessarily a bad thing.

MR. WUCHERPFENNIG agreed.

SENATOR WIELECHOWSKI also suggested a tax/royalty system could have progressive elements tailored to specific fields.

MS. DAVIS concurred. She noted right now in the United States the lease is the contract; it sets up the right to the royalty. Once in place, such instruments don't get modified unless the parties so agree. In Alaska, the contract portion is locked into the royalty structure. However, certainly it is a state's prerogative to decide what PSC elements to import into its future lease agreements for new leases. In response to mention of Venezuela and Russia, Ms. Davis acknowledged the downside of working in a developing country that lacks a strong legal tradition. She said it is more an indictment of the underlying political structure and its stability than of the PSC structure, however. She highlighted the need to find a forum in which to enforce rights under a contract, for instance.

10:14:15 AM

MR. MARKS returned to slide 9. He offered DOR's judgment that for comparing Alaska's fair share with jurisdictions that have similar business risks, the relevant peer group is the tax/royalty jurisdictions: the United Kingdom (UK); Norway; the Gulf of Mexico; and Alberta, Canada. He said Dr. Williams would detail relative business risks between Alaska and those jurisdictions under both PPT and ACES. What would be shown for Alaska is this: Both the government take on new fields and the MTR on existing fields lie between those of the UK and Norway.

CHAIR HUGGINS surmised DOR's recommendation would be that Alaska stay in this category.

MS. DAVIS affirmed that. She added that ACES, by design, is essentially staying where PPT is. They're still talking about looking solely at the production tax system.

MR. MARKS turned to slide 10, highlighting fundamental changes from past efforts in looking at fair share to government. By hiring PFC Energy, the state has a more exhaustive inventory of international jurisdictions, whereas he believes past efforts looked at a small number of countries. In addition, many past efforts looked at generic projects - taking the same project and seeing how it would behave in the fiscal system in Venezuela, Angola, and Alaska. That isn't how the world works, however. Each place's projects are a result of its geography and geology. Thus the current effort has been to look at real projects.

MR. MARKS reported that DOR has done a lot of internal work, trying to model individual projects, a fairly daunting task when it comes to getting the details of costs and production. One reason PFC Energy was retained is its huge database for this. In addition, to beef up its internal prowess, DOR procured the Schlumberger Peep model, which has detailed fiscal systems around the world; DOR is doing the work internally to model individual projects. Mr. Marks concluded by saying further changes include 1) recognizing the difference between new and legacy fields and 2) comparing Alaska with the relevant competition, rather than the worldwide average, since fair share is a product of relative business risk.

10:17:50 AM

SENATOR WIELECHOWSKI asked why all comparisons weren't being used. An oil company will go where conditions are most favorable, even Angola if money will be made there. He asked: Doesn't it all come down to net present value or internal rate of return?

MS. DAVIS responded that PSCs have high government take, between 70 and 90 percent. The reasons are: 1) those places have the geology and 2) they have flexibility within their systems to deliver a return of capital, structuring it so there is a big prize for companies coming in - to recover their costs quickly in return for a much larger government take. By contrast, the State of Alaska cannot create that structure from whole cloth right now. It has property taxes, royalties, income taxes, and production taxes, and there is federal tax on top of it. What is contemplated is changing just one element: production tax. Thus Alaska's position relative to Angola or some other country with PSC won't be changed.

MS. DAVIS added that the effort is to have a much finer focus on the competition within shooting distance, so to speak. Investors will be comparing Alaska against Norway or the Gulf of Mexico, not choosing between Alaska and a less developed country. If investors choose the latter, nothing Alaska can do with its production tax rate will make the difference. Thus DOR wants to inform legislators about the zone of Alaska's relative ranking with its nearest and best competition. This can be influenced by what happens in the legislature.

[10:21:53 AM](#)

SENATOR WIELECHOWSKI said it doesn't make sense to him, though, because the three big oil producers invest in both production sharing and tax/royalty jurisdictions.

MS. DAVIS noted today there'd be discussion of several factors that are weighed, including political risk, the value of the oil and gas itself, and the cost to develop. While clearly driven by a project's net present value, companies won't want to bet the whole farm if there is political risk. Thus they'll also go to the more stable jurisdiction. It's like investing in both bonds and high-rolling stock. They want to diversify the portfolio. Alaska plays a role in that investment pattern. The competition to look at is the other stable jurisdictions. And the goal is to get to the top of that pack.

MR. MARKS added if the total deal is compared, a PSC scenario provides very good geology and a fiscal system nailed down in a contract, in exchange for paying more in government take. Alaska cannot offer that deal, including the geology or fiscal stability, as seen by last year's efforts on the gas contract.

[10:24:29 AM](#)

SENATOR STEDMAN expressed concern that every consultant seems to have a different comparison universe.

MS. DAVIS agreed that debate can be framed by choosing the comparables. Thus DOR has tried to look at the group it believes is the competition in terms of where the dollars are and what the companies will be looking at. The desire is to make the peer group broad, providing as many data points as possible, but without stepping outside the bounds of that zone. That is why DOR looked at the UK, Norway, the Gulf of Mexico, and Alberta. Ms. Davis said there is a tendency for consultants to provide data on 100 countries, which is interesting but makes

one's head spin. She emphasized staying productive, being efficient, and looking at the realistic choices.

10:27:20 AM

SENATOR STEDMAN suggested the need to review the evolution as past consultants presented field comparisons during hearings on PPT. He then referred to capital budgeting for the major oil producers in the Arctic. He asked whether this information - about which are the competitive oil basins - is coming from the boardrooms of BP, ExxonMobil, ConocoPhillips, and perhaps Chevron, or whether it is a subjective interpretation.

MS. DAVIS noted today the comparisons would be with other governments. Tomorrow it would be looked at from industry's perspective. The department would provide where the companies are investing, looking at corporate records, what they've actually done, where they say they're investing, and so forth. It would also be based partly on some consultants who've worked within those companies and participated in the investment process during that time. Obviously, the state isn't in the boardrooms of those three large companies and thus cannot say what they're doing for 2008 for forward-looking investments; she suggested the companies themselves could provide that information when their representatives testify.

SENATOR WAGONER surmised there must be some intrinsic value to doing business where there is a stable government with stable taxes. However, the major companies that testified on PPT never provided an answer; he conjectured that perhaps they feared if the value were revealed, the tax would rise accordingly. He asked that Ms. Davis think about it and perhaps answer in the future with her best estimates.

MS. DAVIS agreed that the industry is negotiating with governments over a dollar amount, and that revealing what is valued clearly affects the negotiations. The state must do its best to read the tea leaves. For example, it is highly important to see where the companies have been spending their money, even though it requires looking back.

10:33:47 AM

MS. DAVIS, in further response, suggested if the state doesn't believe the companies' actions make sense, then clearly it isn't looking through the industry's eyes.

SENATOR McGUIRE pointed out that legislators must justify to the public why a particular government take is being accepted.

People will compare the take with that in Qatar or Kuwait. Furthermore, some information from companies is proprietary. She recalled that ELF was off-limits in 2001 because of the fear that changing it would cause the industry to leave the state. But the sky didn't fall, and there are jobs. She said it is difficult to know where to draw the line.

10:36:42 AM

MS. DAVIS agreed the zone of acceptability is challenging to find.

CHAIR HUGGINS welcomed Representatives Gara and Ramras.

10:37:22 AM

MR. WUCHERPFENNIG began by explaining that at PFC Energy he is responsible for project economics. Together with a small team, he provides all economic and financial analyses of various consulting projects and subscription services; he cited an example. The team has evaluated about 300 fields internationally; results from about 190 would be presented today, concentrating on government take and tax rates. Project economic indicators would be looked at later.

MR. WUCHERPFENNIG gave a slide presentation with an accompanying handout titled "Government Take Comparison." He showed slide 3, "Distribution Marginal Tax Rate of 190 fields (All Projects)," noting the results were run at different price ranges and thus 1,400 points were depicted. He told members that most comparable regimes for Alaska fall between 40 and 90 percent for marginal government take.

10:39:27 AM

MS. DAVIS added that DOR had seen a full presentation of his analyses. The next six slides would encapsulate DOR's primary conclusions, but each number on the bar charts results from 190 projects across several pricing regimes.

MR. WUCHERPFENNIG drew attention to vertical lines on slide 3 representing three tax/royalty regimes: the Gulf of Mexico, at 43 percent; the UK, at 50 percent; and Norway, at 78 percent. He said they fall in a straight line regardless of price because these regimes aren't progressive in terms of marginal tax rates. No matter what the price environment is, the marginal government take remains the same.

10:41:34 AM

SENATOR STEDMAN requested more detail about the Gulf of Mexico.

MS. DAVIS replied that later today each would be addressed as a case study, with details on fiscal structures.

MR. WUCHERPFENNIG explained slides 4 and 5, graphs relating to the median marginal tax rate. The effort was to look at one representative year in the life of a field for a project; the tenth year was chosen, although it could have been another. "Median" means all 190 projects were sorted and the middle one was picked as a representative project at the midpoint. Citing the high number of projects in the Gulf of Mexico, he said the median tax rate is 43 percent.

MR. WUCHERPFENNIG noted for PSAs there is a slight progression, after which it remains more or less flat. Even at 30 percent, the maximum government-take bracket is reached. If a company already makes several million dollars a year, the next million is taxed at the same rate as the last because of already being in the highest tax bracket. Slide 5 again shows the Gulf of Mexico at 43 percent, the UK at 50 percent, and Norway at 78 percent.

[10:43:59 AM](#)

MS. DAVIS reminded members that while Alaska wasn't included in the graph, its marginal take and its full-field-cycle take are between that of the UK and Norway.

SENATOR WIELECHOWSKI asked whether figures for the UK and Norway are for all fields or just legacy fields. He recalled that Daniel Johnston had testified recently that the UK and Norway are both at 75 percent for legacy fields.

MR. WUCHERPFENNIG replied that this concentrates on newer fields and the current tax regime. Those fields under a separate tax regime in the UK aren't included.

SENATOR WIELECHOWSKI asked whether the tax rate for legacy fields in the UK is 75 percent.

MR. WUCHERPFENNIG indicated that is about right.

SENATOR STEDMAN said he was struggling with the concept of a comparison with the UK, Norway, and the Gulf of Mexico, since the latter doesn't have a state take; it is a whole different issue there. He surmised Alaska's oil basin would have much more competition for a company's budget than just the first two jurisdictions.

[10:45:49 AM](#)

MR. WUCHERPFENNIG agreed more areas could attract investment. But many of those might not have tax/royalty regimes. Everything seen in the PSA graphs is probably across 15 different regimes. While the UK, Norway, and the Gulf of Mexico are major areas that may still attract investments, other areas might no longer attract investment for geological reasons.

SENATOR STEDMAN reiterated his concern about comparing Alaska with the Gulf of Mexico because it is radically different.

MR. WUCHERPFENNIG asked whether that's because it doesn't have a state take.

SENATOR STEDMAN said yes, and because it relates to gas as opposed to Alaska's oil. He asked whether this is talking about oil or an oil and gas mix.

MR. WUCHERPFENNIG explained that the effort was to eliminate projects that are predominantly gas, although gas is associated with some of these oil projects. He turned to slides 6 and 7, relating to median undiscounted government take in economic rent. He defined economic rent as revenues minus costs. That amount can be split between the government and the private contractor. The graphs show the progressive nature of the PSA and the regressive nature of a tax/royalty regime like that in the Gulf of Mexico, which is slowly approaching the 43 percent. He suggested this confirms that tax/royalty regimes have a regressive nature as oil prices increase.

MS. DAVIS, in response to Chair Huggins, noted this depicts all 190 projects worldwide, split between PSA versus tax/royalty regimes.

MR. WUCHERPFENNIG emphasized that neither the UK nor Norway has the regression because they don't have a royalty. A tax/royalty regime is regressive due to the royalty portion, which is levied on revenues and not profits. By contrast, the Gulf of Mexico has a royalty portion and a tax portion, and regression is seen as oil prices increase.

[10:48:51 AM](#)

MR. WUCHERPFENNIG, in response to Senator Stedman, explained that if a royalty portion is levied on revenues and a tax is levied on profits, the overall government take in economic rent will decrease as oil prices - and thus profitability - increase.

SENATOR STEDMAN surmised one reason for moving away from taxes and royalties into this new concept of PSAs, which is harder for the public to understand, is to protect the state's percentage take when oil prices are high.

MR. WUCHERPFENNIG agreed it may be one reason.

SENATOR WIELECHOWSKI asked whether Norway has 30 percent government participation.

MR. WUCHERPFENNIG replied if the government takes its share of the costs, it wouldn't be considered government take. Rather, the government would be acting as if it were a contractor or a party to the investor group.

SENATOR WIELECHOWSKI asked if Mr. Wucherpfennig had factored in government participation in any calculations for Norway.

MR. WUCHERPFENNIG replied no. If the state pays as if it were a private party, he treats it like a private party.

SENATOR WIELECHOWSKI asked whether that skews the numbers for Norway at all. If a company comes in and makes a big find, the government can request 30 percent of it, he noted.

MR. WUCHERPFENNIG agreed, but said it would be paid for.

SENATOR WIELECHOWSKI asked whether they'd pay back the exploration costs.

MR. WUCHERPFENNIG answered yes. If this relates to Statoil, it would be like a private partner. He opined that the 30 percent isn't fixed, mandatory participation; it varies.

SENATOR WIELECHOWSKI asked whether that increases Norway's take at some point.

MR. WUCHERPFENNIG surmised this relates to how accessible the resources are in Norway. He said if he knows that a certain amount of these resources goes to the state company or to state participation, then it reduces his access to the resource. From a financial perspective, however, the state pays the same amount that he pays. So he doesn't have an economic disadvantage. It doesn't make his investment any less attractive.

SENATOR WIELECHOWSKI responded, "Except you've just lost 30 percent of your field, right?"

MR. WUCHERPFENNIG agreed, but indicated he doesn't pay anything for it. He is just sharing that field with another contractor party. So he doesn't consider it as government take.

10:51:33 AM

SENATOR WIELECHOWSKI surmised it can't be a good thing for an oil company if it finds a great field and then loses 30 percent of it.

MR. WUCHERPFENNIG clarified that he thinks this is more about accessibility of resources.

CHAIR HUGGINS gave his understanding that in Norway the government has two roles: 1) as a private contractor and 2) as a government that owns the resource.

MR. WUCHERPFENNIG affirmed that. He said what they are looking at here is only the resources.

SENATOR WAGONER characterized the 30 percent as another private company, a participant in the lease or unit agreement.

SENATOR GREEN said it cannot be denied, though, that Norway has participated in the risk of exploration to an extent; it doesn't happen in other projects and countries.

10:52:38 AM

MR. WUCHERPFENNIG responded that there are regimes where exploration risk is borne solely by the private contract and then the state comes in and takes a share. It is a little different in Norway, where there is an active company that is partially state-owned and then a state direct financial interest. There is more of an active role.

CHAIR HUGGINS suggested the closest comparison in Alaska would be the Murkowski Administration's proposal for the gas pipeline; under that proposal, the state would have been a partial owner.

SENATOR STEDMAN requested discussion about the North Sea, how Great Britain changed its economic policy and created an expansionary environment in that basin, and the impacts.

MS. DAVIS noted this would be addressed by Mr. Wucherpfennig or later by Dr. Williams of DOR.

10:54:00 AM

MR. WUCHERPFENNIG showed slides 8 and 9, bar graphs relating to the median discounted government take in economic rent, discounted at 10 percent. He said this honors the effective time value of money. As Mr. Marks had noted, usually government take is higher on a discounted basis than on an undiscounted basis, simply because the government usually doesn't participate in the negative cash-flow phase.

SENATOR STEDMAN requested discussion of the following for new members and listeners: why the 10 percent discount was chosen, the time value difference, and why the government-take percentage increases when this is done.

MR. WUCHERPFENNIG explained that 10 percent is widely used in the oil industry; whether it is right, wrong, or appropriate is another question. Similar studies were run at 15 percent, and while the principle still holds, it was decided to use 10 percent here. It always makes sense to look at discounted numbers because, as indicated by Mr. Marks, a tax of \$1 billion paid in year one is different from paying it ten years later; the latter allows the money to be available for other investment opportunities.

SENATOR STEDMAN surmised when government-take figures are looked at over time, more time should be spent looking at the discounted numbers.

MR. WUCHERPFENNIG agreed it makes sense to take that into account also.

SENATOR McGUIRE concurred, saying a critical part of the equation that people forget about is the time value of money, which is huge. She surmised it's a driver in the boardrooms.

10:56:30 AM

MR. WUCHERPFENNIG concluded with slide 9, which splits data among the Gulf of Mexico, the UK, and Norway on the same basis, the median discounted government take of 10 percent. He pointed out that the government-take numbers are slightly higher than those on an undiscounted basis, but not dramatically so.

SENATOR WIELECHOWSKI inquired if both Norway and the UK give different treatment to legacy fields and exploration fields.

MR. WUCHERPFENNIG answered that at least in the UK there is a very different system; he believes differences in Norway are more subtle.

SENATOR WIELECHOWSKI asked whether this is encouraging or discouraging investment.

MR. WUCHERPFENNIG replied that at least in the UK, where differences are clear, government take on new fields is lower than on legacy fields; that is encouragement. The government take was increased recently from 40 percent to 50 percent. And oil prices continue to be strong, which certainly has helped the situation. So it is difficult to say what would have happened if the government hadn't raised the rate.

[10:58:59 AM](#)

MR. WUCHERPFENNIG, in response to Senators Green and Wielechowski, said his company used to be called Petroleum Finance Company, but now it is PFC Energy; it doesn't own assets or do exploration. He opined that most of its business, even on the upstream side, is likely with international finance corporations (IFCs), the oil companies. However, it also does business with governments and national oil companies.

SENATOR STEDMAN requested a synopsis of PFC Energy, including Mr. Wucherpfennig's involvement with this legislation on behalf of the administration.

MR. WUCHERPFENNIG clarified that PFC Energy is an international advisory firm in the oil and gas industry. Its clients are oil and gas companies, governments, and financial institutions to a certain extent. It has several groups and lines of business including upstream and downstream oil, downstream and midstream gas, and political risk analysis. On the upstream side, where he works, PFC Energy does a lot of strategic consulting to companies and evaluates oil and gas assets. In order to do that, the company models fiscal regimes; this is the basis of what he is presenting today. It also evaluates the economics of fields for subscription services, reports accessible to all. Such work is also done on a custom basis if somebody wants to find the value of a certain field, for instance.

MR. WUCHERPFENNIG added that because the work is accessible to almost everybody, it shows in a way that the company tries to have a neutral stance. It tries to express a true opinion and assessment. Quite a bit of time is spent looking at these fields. This is in contrast to saying what a company wants to

hear. However, there is an effort to get feedback, using all information possible to form the analysis. In response to Chair Huggins about conflict-of-interest challenges, he said there are none of a general nature, but sometimes they occur and then a job might have to be declined.

SENATOR WIELECHOWSKI asked: When comparing Alaska's legacy fields, is it fair to make a comparison with all fields in the UK and Norway, or should it be restricted to legacy fields?

MR. WUCHERPFENNIG suggested looking from the standpoint of someone making an investment decision. What are the numbers one is used to seeing? And what has happened in recent memory? If an investment opportunity in a UK nonlegacy field provided for better economics than additional investment in a legacy field in Alaska, for instance, he might go there instead. Whether it was a legacy field wouldn't affect the investment decision.

[11:04:00 AM](#)

SENATOR WIELECHOWSKI pointed out that some, including him, believe there should be a separate valuation on legacy fields and other fields. He asked: If there were an ACES-type plan relating to exploration fields and a different rate for legacy fields, would that impede investment somehow for the former?

MR. WUCHERPFENNIG responded that the investment decision is complex. Several factors would play into it; those would be discussed in more detail. He wouldn't go so far as to say this alone would make the decision positive or negative. In the end, it is about what the alternatives are and whether there is access to other resources and opportunities that provide a better and safer return.

SENATOR WIELECHOWSKI asked: In terms of political risk, where does Alaska sit?

MS. DAVIS pointed out that there would be a PFC Energy slide on political risk in the next presentation; Mr. Wucherpfennig hadn't done that work.

MR. WUCHERPFENNIG clarified that the study focused on fiscal stability, one part of political risk. While the chances of being physically hurt in the United States by some extremist organization are very low, that isn't true everywhere in the world.

CHAIR HUGGINS thanked Mr. Wucherpfennig for his testimony.

11:07:48 AM

MS. DAVIS turned attention to a handout titled "Case Studies: Government Competition for Oil & Gas Investment," prepared by Michael D. Williams of DOR. She invited Dr. Williams, along with Rich Ruggiero and Bob George of Gaffney Cline, to give the accompanying slide presentation.

The committee took an at-ease from 11:08:46 AM to 11:11:49 AM.

11:11:57 AM

MICHAEL D. WILLIAMS, Chief Economist, Tax Division, Department of Revenue, began by highlighting what the governor and others have said about the state receiving its fair share while remaining competitive. Emphasizing a big-picture perspective, he showed slide 2, "Capturing 'Fair Share,'" a bar graph from a report of the Alberta Royalty Review Panel. The horizontal axis represents the percentage of revenues going to the government, whereas the vertical axis lists petroleum regions. The red horizontal bars depict the government share before 2002, and the blues ones after 2006. This slide was prepared by Cambridge Energy Research Associates for Chevron, which presented it during testimony in Alberta. It shows that many nations are struggling with the same issue of what fair share is, and indeed they are increasing their fair shares.

11:13:40 AM

SENATOR STEDMAN asked about the velocity of change. A year ago when working on PPT, he recalled, there was an international shift underway to increase government take as oil prices rise, but its extent wasn't known at the time.

DR. WILLIAMS agreed it is a dynamic process. Saying he was aware that things have been changing, and also that over time governments attempt to get their fair share, he cited Libya as an example, since it had recently emerged from having sanctions against it. He asked whether Mr. Ruggiero could offer insight. In response to Chair Huggins, he clarified that "USA-GOM" on the slide refers to the Gulf of Mexico.

SENATOR STEDMAN recalled there were legislative changes regarding Louisiana because of rebuilding following Hurricane Katrina. They now get a percentage of the federal government take, which Alaska doesn't have but would like to have in federal waters. He asked whether that affected the chart.

DR. WILLIAMS answered that he hadn't compiled the data and thus didn't know whether it had changed. He surmised it probably wouldn't have, since it reflects total government take and not the distribution of revenues allocated to the State of Louisiana.

11:16:15 AM

RICH RUGGIERO, Gaffney, Cline & Associates Inc., showed a slide that wasn't duplicated in the handout, noting Gaffney Cline had several slides that go to the heart of this morning's questions. With regard to the speed of change, he suggested looking at the industry over a longer-term basis than just the last three or four years. Plotted on the slide was the price of a barrel of oil, and it characterized the oil business's 11-year cycles.

MR. RUGGIERO explained that when there was a run-up in prices in the 1970s, lots of countries open to foreign investment - companies developing their resources and having ownership - suddenly closed; those were listed on the slide. As prices rise, countries look to get their fair share, and they believe they can operate the business within their country. But in the "lost decade" of the 1980s, when prices plummeted to almost single digits, and at the beginning of the 1990s, locations started opening back up. They wanted the technology increases over that decade; wanted the expertise of the oil company employees; and, in some cases, needed the capital which the oil companies could bring. Shown was a list of those countries.

MR. RUGGIERO highlighted the current run-up in price. In the last couple of years there has been activity in places like Bolivia, Venezuela, and Russia. Mr. Ruggiero said this is their way of reacting and stating what they believe is their fair share in the current environment. Thus he suggested looking to history to understand what is happening now in the business around the world.

11:19:20 AM

MR. RUGGIERO, in response to Chair Huggins, elaborated on the lost decade, so called because that is when the oil industry lost most of its employees, its talent. Following the run-up in the 1970s, the company he worked for went through its first layoff in 100 years, for example, and the number of engineers dropped from 38 to 5; investment all but dried up in his district. The price had fallen to a point that possible investment projects became uneconomic. Today, there is a struggle with "people resources" as the resource that is limiting investment worldwide in the industry.

CHAIR HUGGINS recalled Dr. van Meurs' testimony about a South American country that nationalized the business 10 or 15 years ago. He asked if this is reflected on the Gaffney Cline chart.

11:20:51 AM

BOB GEORGE, Gaffney, Cline & Associates Inc., surmised it was Venezuela, which had a period of nationalization. However, he hadn't heard Dr. van Meurs' discussion.

MR. RUGGIERO returned to the slide, noting the trend showed by Dr. Williams - increasing their take on new projects and sometimes on existing projects - is consistent with what was seen the last time there was a perceived strong run-up in the price of the underlying commodity. In response to Senator Wielechowski, he said the step increase recommended under ACES isn't out of line with other countries.

11:21:32 AM

SENATOR WIELECHOWSKI asked where Alaska would fit, since it isn't shown on slide 2, "Capturing 'Fair Share.'"

MR. RUGGIERO clarified it isn't a Gaffney Cline slide; he opined that the data set behind it was from Daniel Johnston.

CHAIR HUGGINS requested a slide that includes Alaska.

MR. GEORGE suggested some slides in Dr. Williams' presentation would do so. For the blue line shown on slide 2, Alaska's percentage would be perhaps in the mid-60s.

DR. WILLIAMS specified 61 percent. He said prior to PPT it was in the upper 50s, if he recalled correctly. If it went to 61 percent with PPT, there'd be about a 3 percent change.

SENATOR STEVENS noted this looks at a snapshot in 2006. He surmised that many other areas are doing what Alaska is doing now and that it may change monthly.

DR. WILLIAMS agreed there are changes going on. Analysis tends to be done at a point in time, but what is happening today may not happen five years from now. He cited an example, saying governments do respond to changes in the environment.

11:24:34 AM

SENATOR WIELECHOWSKI asked whether "T&T" on slide 2 is Trinidad and Tobago.

AN UNIDENTIFIED SPEAKER affirmed that.

SENATOR WIELECHOWSKI recalled that Dr. van Meurs had compared Alaska with Trinidad and Tobago as a peer. He asked whether that is a fair assessment.

MR. RUGGIERO answered it depends on what basis the comparison is made, and Dr. van Meurs didn't specify. For example, does it compare government take, contractual terms, or prospectivity? Without knowing the basis, he didn't know whether he'd agree.

CHAIR HUGGINS proposed asking Dr. van Meurs about the basis.

DR. WILLIAMS informed members that he would cover six dimensions or factors: 1) prospectivity, the opportunity to find oil; 2) oil production costs, the upstream costs; 3) political risk; 4) fiscal stability; 5) the speed of capital recovery; and 6) government take. Some of these had already been covered in detail, but he would at least present comparison charts.

MR. RUGGIERO addressed Senator Wielechowski, noting the chart compares new fields. He mentioned his personal experience in Trinidad and Tobago as well as questions raised about the UK. He said the UK number doesn't get up to the point where it is for existing operations. He recalled that the primary contract for most of the early gas development in Trinidad and Tobago would be at rates much less than those on this chart; one of the existing 1970s vintage agreements still exists. In further response, Mr. Ruggiero said that from what he sees on the chart and from regimes he is familiar with, it more represents new developments than new-plus-existing ones.

[11:26:41 AM](#)

CHAIR HUGGINS requested that Gaffney Cline provide new slides that clarify the answers.

MR. RUGGIERO agreed that what is done to attract investment should be a separate discussion from what to do regarding attracting investment for existing fields. As numbers get thrown around, there may be an overlap and perhaps a misunderstanding of what applies to what.

[11:27:44 AM](#)

DR. WILLIAMS touched on slide 3, today's agenda. He turned to slide 4, "Oil Producing Countries," a map depicting production of oil, both crude oil and natural gas liquids (NGLs). He

emphasized that numbers shown in the key are in thousands; thus countries shown in red, greater than 5 thousand - including the United States - produce more than 5 million barrels a day.

SENATOR STEVENS surmised production from Trinidad and Tobago would be small compared with Alaska's.

MR. GEORGE, using the map, answered that "on this one" it will be fairly small because it is oil production, whereas the majority is gas.

MR. RUGGIERO recalled testimony that they are the largest supplier of liquefied natural gas (LNG) to the United States, and the world's largest producer of methanol, a big use of gas resources.

SENATOR STEVENS remarked that there is never an easy answer.

DR. WILLIAMS reported he'd brought a BP statistical review. For 2006, Trinidad and Tobago produced about 174,000 barrels a day, about one-fifth of what Alaska is producing.

11:30:26 AM

DR. WILLIAMS explained slide 4, which uses 2006 data. The countries shown in red include Saudi Arabia, which produced about 10.4 million barrels a day; Russia, about 9.8 million; and the United States, including the Lower 48 and Alaska, about 6.9 million. Iran, shown in orange, produced about 4.3 million; China, about 3.7 million; and Mexico is in this category. Iraq, now producing about 2 million a day, isn't in the top ten.

CHAIR HUGGINS emphasized that this isn't based on reserves, just production. He surmised for Iraq and Iran the colors would change dramatically if they were depicting reserves.

DR. WILLIAMS replied he wouldn't use the term dramatic. He cited about 115 billion barrels for Iraq and 137 billion for Iran. When pondering reserves, one must consider that Iraq is in the midst of a war and also invaded Kuwait in the early 1990s and Iran in 1981; opportunity for exploration has been limited since maybe 1980. Some geologists believe it has the potential for more reserves than Saudi Arabia. But it hasn't been explored nearly as much as other areas due to military activity.

11:33:40 AM

DR. WILLIAMS returned to slide 4, noting Canada produced 2.1 million barrels a day in 2006. United Arab Emirates, a tiny

country, was eighth in the world in production, with 3 million a day; it uses contractors and pays them so much per barrel. Venezuela produced about 3 million a day in 2006, but recently nationalized assets. Norway produced about 2.8 million a day. These are the world's ten largest oil-producing countries. While some aren't open for business, others - notably Canada, the United States, and Norway - actually invite companies to come in and explore. Those are in Alaska's peer group.

MR. RUGGIERO indicated Saudi Arabia isn't open for oil development, but there are international oil companies doing gas development there, which is a priority for that country.

CHAIR HUGGINS mentioned the Chinese.

SENATOR WIELECHOWSKI recalled hearing that 90 percent of the world's oil is state-owned or done by state oil companies. He asked what is left for an oil company.

MR. RUGGIERO pointed out that Alaska is included within the characterization that 90 percent of reserves are owned by governments. Just as Alaska - within certain boundary conditions and terms - is leasing rights to exploit those reserves or resources to international companies, so are many governments in the world that also own the mineral resources in their respective countries.

SENATOR WIELECHOWSKI explained that he was focusing on where an oil company realistically could do business. He asked whether Exxon, the largest corporation in the world, does 3 percent of the oil exploration and extraction in the world, as he'd heard.

UNIDENTIFIED SPEAKERS mentioned 2.4 million and 84 in the world. They agreed 3 percent is about right for oil production.

[11:36:58 AM](#)

CHAIR HUGGINS indicated the Chinese emphatically say their numbers are close to Exxon's.

DR. WILLIAMS showed slide 5, which highlights two broad types of legal systems, production sharing and tax/royalty. He noted Roger Marks of DOR had covered these.

DR. WILLIAMS turned to slide 6, "Tax/Royalty Governments Comparison," which lists Alaska, Alberta, Norway, United Kingdom, and US Gulf of Mexico. He said he would present the same broad categories for each fiscal regime: 1) signature

bonus, paid if a company signs a lease and pays money; 2) royalty, often considered the government share, though not all countries have it; 3) production tax, based on production by a company; 4) tax credits/uplift, since some offer credits and others offer uplift, which is referenced to capital expenditures and can be as attractive as a credit; 5) property tax, typically based on some sort of assessment scheme; and 6) corporate income tax, both state and national.

DR. WILLIAMS began with Alaska, slide 7. He said Alaska has a signature bonus. Royalties are negotiated between the state and the leaseholder; while they vary, they average 12.5 percent and are based on the gross value at the point of production. The production tax is the PPT, based on net income. As for tax credits/uplift, Alaska has tax credits; a company can deduct its capital expenditures in estimating net income.

SENATOR STEVENS asked whether there are uplifts in Alaska for which benefits are provided.

DR. WILLIAMS replied not to his knowledge. He said he categorizes them together because some countries have uplifts and not credits; both offer an incentive, the important point here. He opined that one real advantage for Alaska is that it offers credits. Not all regimes do that. Continuing, he said property tax is based on assessed value in Alaska, 2 percent. There have been a number of hearings with the state assessment review board as to what the value is, which he wouldn't cover. There also is corporate income tax.

CHAIR HUGGINS asked who ends up getting the property tax.

DR. WILLIAMS answered that in Alaska the state gets it and local jurisdictions such as the North Slope Borough get it.

CHAIR HUGGINS emphasized that as the pipeline goes through communities, the local community is paid for that property. He said this is important for Alaskans to understand.

[11:42:07 AM](#)

SENATOR STEDMAN added if there is infrastructure, an organized borough gets 2 percent. In an unorganized borough that portion of the tax goes to the state. He asked Dr. Williams to explain to listeners where the royalty money for the permanent fund comes from.

DR. WILLIAMS replied that under current state law, the state receives royalty. The royalty rate is agreed upon between the state and those that have the lease. Of all the royalties paid to the state, 25 percent goes into the permanent fund. Then the permanent fund manages that and purchases investment assets such as stocks, bonds, and so forth.

SENATOR STEDMAN surmised that as the state goes forward and deals with the production tax, it doesn't affect the section that feeds the permanent fund and its revenue stream directly. This is the royalty side of the government-take equation.

DR. WILLIAMS agreed.

SENATOR STEDMAN remarked that changing PPT doesn't accelerate the contributions into the permanent fund, which instead would be fed by expanding the oil basin with more development, research, and oil pumped down the line.

CHAIR HUGGINS emphasized that royalty is a gross-based tax.

DR. WILLIAMS concurred.

SENATOR WIELECHOWSKI gave his understanding that over half of the permanent fund payout - \$1,000, to his belief, in the last payout - was because of additional money put into the permanent fund from production tax.

SENATOR GREEN said it was from the general fund.

SENATOR STEDMAN added that this relates to additional appropriations into the fund, which is under the legislature's discretion. He clarified that he was talking about the fundamentals of how the state operates, and clearly when there is a surplus there is the ability to feed into the principal if the legislature so chooses. He recalled \$8 billion or \$9 billion had been fed in, in addition.

[11:44:59 AM](#)

DR. WILLIAMS continued with slide 7, turning to corporate income tax. For companies operating in Alaska there are two levels: state corporate income tax and federal income tax. For state tax he'd put 9.4 percent, but it is actually a graduated rate that goes up to 9.4 percent at \$100,000. Highlighting the footnote, he said bonuses, royalty, production tax, property tax, and state corporate income tax are deductible as ordinary

and necessary expenses when a company estimates its US federal income tax.

CHAIR HUGGINS asked what the 9.4 percent has equated to monetarily.

DR. WILLIAMS reported that corporate income tax for FY 03 was about \$151 million; FY 04, \$299 million; FY 05, \$524 million; and FY 06, \$661 million. For FY 07 it is estimated at \$565 million but may be higher.

[11:47:56 AM](#)

DR. WILLIAMS next addressed Alberta, slide 8, relating to conventional oil. Noting Dr. van Meurs has worked in Alberta for some time, he emphasized the complexity of its system. Alberta has a signature bonus. If companies go in, bid on a lease, and get the lease, they make the payment. Royalty is at 14.78 percent, but there are three tiers. He read the footnote, which elaborated as follows:

There are three tiers of royalty based upon the age of the well, those tiers are pre-1974, 1974-1992, and post-1992. The royalty rates are expressed in Canadian dollars per cubic meter and are sensitive to well productivity and market price. This analysis is for oil wells that went into production after 1992 and use the rate of \$130.09 per cubic meter, which is a royalty rate of about 15%. See "Technical Royalty Report OG#2: Alberta's Conventional Oil and Gas Industry", Alberta Department of Energy, 2007, page 14.

DR. WILLIAMS explained that the 14.78 percent refers to the estimate for wells calculated as coming into production after 1992. As part of the Alberta panel hearings, the Alberta Department of Energy had done a study, which he'd printed from the Internet. That is how he'd arrived at the 14.78 percent. He said Alberta has no production tax.

SENATOR WAGONER remarked that this is just one portion of Alberta's royalty on conventional oil.

DR. WILLIAMS affirmed that.

SENATOR WAGONER mentioned oil sands at 25 percent, with talk of going to 33 percent. He suggested this has some relationship to Alaska, where viscous heavy oil is similarly expensive to

extract. He emphasized that Alberta has a differential tax system.

MR. GEORGE agreed, saying gas has separate regimes, somewhat similar to oil, and oil sands have their own regime. While recommending changes across the board, the Alberta royalty review panel has been fairly steady regarding conventional oil and gas. For oil sands, however, the proposals are to make bigger changes. To his belief, that regime is 1 percent up to a point of economic payout, and then it switches to 25 percent. Although it is called a royalty, it really acts as a net-profits regime. Proposals to change this and add an additional severance tax are being considered at the moment.

CHAIR HUGGINS surmised there may have been changes last night, based on a meeting in Alberta.

DR. WILLIAMS highlighted that slide 8 relates only to conventional oil. His intention was to provide an apples-to-apples comparison using just free-flowing oil.

[11:51:54 AM](#)

SENATOR WIELECHOWSKI recalled hearing that there is a higher royalty for heavy oil, and that it is more expensive to extract, particularly from oil sands. He asked why they're charging more for heavy oil than conventional oil.

MR. GEORGE elaborated, saying the gross tax - a term he would use in lieu of royalty - is about 1 percent on heavy oil until there is economic payout. Thereafter, it switches to an amount that for practical purposes is 25 percent. But it is a net profits tax. So whereas the percentage is higher, it is looking at the profitability. If there were a very low profitability heavy oil operation, 25 percent of those profits would be paid, but the dollars paid would be commensurately smaller.

CHAIR HUGGINS summarized that it is front-end-loaded for cost recovery, but there is a trigger point at which a higher net tax rate kicks in.

MR. GEORGE affirmed that.

SENATOR WIELECHOWSKI asked whether Mr. George knew and would be going through the new terms that Dr. van Meurs and the task force in Alberta had recommended.

MR. GEORGE indicated he knew those terms but wasn't prepared to present them.

CHAIR HUGGINS suggested addressing Alberta's conventional oil and then revisiting that.

11:53:34 AM

DR. WILLIAMS returned to slide 8. He said for conventional oil Alberta has no production tax, no tax credits or uplift, and no property tax. For corporate income tax there are two levels: federal, at 20 percent of profit, and provincial, at 10 percent of profit. They are additive, meaning the provincial tax cannot be subtracted as an expense in computing the federal income tax. In Alaska, by contrast, the state tax can be subtracted.

SENATOR WIELECHOWSKI returned to the concept of paying little in taxes until a profit has been made. He asked whether there'd been thought given to doing this in Alaska, and whether it is done in other countries. With respect to mining, he recalled that something similar is done for the Red Dog Mine near Kotzebue.

MR. GEORGE replied he couldn't answer with respect to Alaska, but a similar mechanism is used in other countries in one form or another. It is a progressivity factor where it kicks in more gradually. There are many variations.

CHAIR HUGGINS cautioned that the next ten years are important to Alaska in terms of the development cycle. Thus care should be taken with respect to what is forfeited up front.

11:56:05 AM

KEVIN BANKS, Acting Director, Division of Oil & Gas, Department of Natural Resources, added that net profit share leases (NPSLs) work similarly. As investments are made, capital expenditures are accounted for in a development account. As revenues come in, those are used to reduce that account. When the development account reaches payout - zero - then the state begins to take a share of the profits. The development account also bears some kind of interest to account for the time value of money. That trigger point was used for the royalty relief that Pioneer enjoys at Oooguruk. It is paying the state when it begins production, 5 percent royalty. When the NPSLs within the unit go to payout, its royalty rates will start rising.

11:57:14 AM

DR. WILLIAMS answered a question relayed from Senator Therriault about corporate income tax that a company would pay. Dr. Williams said in Alaska at the federal level the effective rate is 35 percent, give or take; it isn't that different from the actual rate. For state corporate income tax, the effective rate is about 9.2 percent; that is based upon taxable income.

DR. WILLIAMS turned to Norway, slide 9. He said Norway has no signature bonus. To his understanding, when a company wants to develop a project it goes before a board for review and approval. Royalty has been phased out. There is a production tax of 50 percent of profit. Production tax and corporate income tax are additive, meaning one cannot be subtracted from the other. Tax credits and uplift exist, though he didn't know the specifics.

MR. GEORGE said it's 30 percent uplift on production tax, but not against the corporate income tax. He mentioned 7.5 percent a year for four years.

CHAIR HUGGINS asked whether this is net, rather than gross.

AN UNIDENTIFIED SPEAKER affirmed that.

DR. WILLIAMS continued with slide 9, saying Norway has no property tax, but has a corporate income tax of 28 percent. Those are additive, which is how the 78 percent marginal tax rate is arrived at.

SENATOR WIELECHOWSKI asked whether the production tax is a straight 50 percent regardless of the price of a barrel.

MR. GEORGE specified it's on all profits in the Norwegian continental shelf.

12:00:03 PM

MR. GEORGE, in response to Senator Stedman, characterized Norway as a freely democratic country with a small population, about 4.5 million. The oil and gas industry is dominant, and therefore Norway closely manages development and exploitation. For example, it looks closely at the timing of projects in order to dampen huge spikes in revenue that result in inflation and so on. Now that it's in a more mature phase, it has been opened up a little. When a company wants to enter, it applies for a license, laying out where it wants to explore, why, and its understanding of the area. The ministry and the Norwegian petroleum directorate assess the company's understanding and

what its contribution will be to the exploration and to the success of subsequent exploitation in Norway; awards are made on that basis. Thus within the democratic society there is a fairly hands-on approach to management.

SENATOR WIELECHOWSKI said Norway has a \$316 billion permanent fund. He asked how many barrels a day are produced there.

MR. GEORGE recalled that Dr. Williams had said currently it is just under 3 million a day; at the peak, it was a little over that. A fairly similar amount of gas is produced. Both gas and oil are important.

SENATOR WIELECHOWSKI observed that it has been significantly more than in Alaska over the years.

MR. GEORGE affirmed that.

DR. WILLIAMS added his understanding that an LNG export plant is being constructed in Norway now.

[12:02:44 PM](#)

SENATOR STEVENS asked whether the production shown on the charts is within Norway's boundaries or offshore.

MR. GEORGE replied it's all offshore. Historically, it was in the North Sea area, but now it has moved north into the more open Atlantic areas.

SENATOR STEVENS surmised there are claims to the Arctic.

MR. GEORGE affirmed that Norway may be one of the countries with claims in that area, though it's a separate issue and he couldn't remember who had flags planted where for the surface or subsurface.

SENATOR STEDMAN recalled that during hearings on PPT there was information on the North Sea oil basin and how it is integrated with undersea oil and gas lines and so forth. He requested that a presentation include a refresher from the administration on this, since both the UK and Norway operate in the same or a similar basin.

MR. GEORGE responded that many issues relate to optimizing infrastructure and sharing it, especially between the UK and Norway, where there are some boundary fields and ullage created as a result of the maturation of production in the area. And

there are other interconnections, particularly gas lines further south.

12:04:49 PM

DR. WILLIAMS turned to the UK, slide 10. He said the UK has no signature bonus. Royalty was discontinued for new fields in 1982 and for older fields in 2003. As for production tax, fields developed before March 1993 pay 25 percent.

MR. GEORGE corrected slide 10, saying that rate is actually 50 percent. The marginal take on those fields is 75 percent, but that's because of the deductibility of that tax against the corporate income tax.

DR. WILLIAMS apologized for the typo. He said there are two rates. Newer fields don't pay a production tax. But for older legacy fields there is a production tax of 50 percent. When corporate income tax is computed, that Petroleum Revenue Tax (PRT) can be deducted; this is how the 75 percent is arrived at. It is similar to the United States with respect to deductibility. The UK has no tax credits or uplift and no property tax. Corporate income tax is 50 percent of profits. He asked whether Mr. George wished to add anything to the footnote, which read:

For fields in operation prior to 1993, the Petroleum Revenue Tax is due and is a tax on net income with detailed specifications for such items as lease costs, acquisition costs, abandonment costs, tariffs, etc. The PRT has a tax rate of 25% and the tax paid is deductible from profits in computing Corporate Income Tax.

MR. GEORGE noted it is 50 percent instead of 25 percent, as pointed out previously. He also clarified that the standard rate of income tax for most countries has just gone down from 30 percent to 28 percent; however, it is being held with supplementary taxes for oil companies that act fairly much like the rest of the corporate income tax, which holds it at 50 percent for oil companies.

12:07:05 PM

CHAIR HUGGINS surmised the 50 percent is a good planning figure.

MR. GEORGE affirmed that.

DR. WILLIAMS turned to the US Gulf of Mexico, slide 11. He asked members to think in terms of offshore deep water. He said there is a signature bonus. When a company wins a bid, it pays the US federal government.

MR. RUGGIERO reported that when Gaffney Cline first came up to talk to DOR, they looked at lease bonuses for several recent licensing rounds in the Gulf of Mexico. It was generally concluded that there were a few blocks where bids were around \$7 million or \$8 million, but the average bid tended to be plus or minus \$100,000 to \$150,000 as a signature bonus. He noted the need to guesstimate how many leases never produce anything; that is a straight expense, applied to the leases that do make some production. In general, the lease bonus paid was insignificant in calculating overall government take in the Gulf of Mexico.

MR. RUGGIERO contrasted that with the most recent licensing round. Some 700 properties were awarded, and the total collected winning bids amounted to just shy of \$3 billion. The average winning bid was just under \$4 million, roughly a twentyfold-to-thirtyfold increase over what it had been for quite a period of time in previous lease sales. Providing a side statistic, he said last year Angola put up two blocks for bid. One winning bid was just under \$1 billion, and the second was just over \$1 billion. When it comes to signature bonuses and properties where people believe there is potential - and with the recent price increase - these are becoming more significant in terms of overall government take.

MR. RUGGIERO, in response to Chair Huggins, specified that in the Gulf of Mexico the bids have risen to an average of \$3.5 million to \$4 million per winning bid.

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DR. WILLIAMS returned to slide 11, indicating there is royalty relief for deep water. He read the first part of the footnote, which stated:

The Deep Water Royalty Relief Act of 1995 expanded the Secretary's royalty relief authority in the GOM outer continental shelf. Under the Act, producers were able to exclude the first 87.5 million barrels of oil production from each lease from royalty when oil prices were under \$34 per barrel.

He said this means they didn't have to pay any royalty on the first 87.5 million barrels produced if prices were under \$34. Calling the following the "administrative catch," Dr. Williams paraphrased the remainder of the footnote as follows:

When contracts were actually approved, the price - the trigger point - was not included in the agreement. Thus the contracts between the oil companies and the US government do not specify a price at which the royalty payment is required. On January 9, 2007, the US government royalty rate was increased to 16.7 percent from 12.5 percent - but the 87.5 million barrel exclusion still applies, and there is still no price trigger in the contracts that were already in place.

DR. WILLIAMS summarized that there is significant royalty relief right now for some contracts signed early on. New ones contain the trigger, but old ones haven't been revised. He surmised members may have read about efforts to change that.

SENATOR STEDMAN expressed curiosity about the data on government take when this oil basin is compared with Alaska's. For example, do the numbers need adjusted because, from the government's perspective, it was an oversight?

DR. WILLIAMS replied that many numbers computed for government take use the formulas. Although Mr. Wucherpfennig had presented results from actual projects, standardized projects would be used for much of the analysis. That would be done for Alaska, using seven projects. Dr. Williams said he would go over prospectivity, and the Gulf of Mexico would be covered; thus some numbers would be seen for volumes of discovered oil.

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SENATOR WAGONER said he thought that case had gone to court and the oil companies had won with respect to royalty.

DR. WILLIAMS concurred, saying this means the contracts were in place.

SENATOR WAGONER surmised those wouldn't be changed.

DR. WILLIAMS replied that the government is actually making a plea that they come in and change them, to his understanding.

CHAIR HUGGINS asked what the production is in the Gulf of Mexico, to put the 87.5 million barrels into perspective.

DR. WILLIAMS said he didn't know off the top of his head, but for a single lease, it might be most of its production. He offered to call the federal Minerals Management Service (MMS) to find out.

CHAIR HUGGINS surmised if that level cannot be hit, it's basically an irrelevant number if payment isn't required.

MR. RUGGIERO noted the need to go back and look at the distribution of field size and recent field discovery that might have been done under the vintage contract where that exclusion applies. This would suggest whether it plays a major role.

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CHAIR HUGGINS highlighted the need to know whether there is a royalty there that must be paid.

SENATOR WAGONER surmised the most important part is to calculate the allowed royalty relief as not being allowed; this would provide a fair comparison, since it wasn't intended to be allowed.

DR. WILLIAMS affirmed that. Returning to slide 11, he said the US Gulf of Mexico has no production tax; this is offshore. There are tax credits, but no property tax, since it isn't a state. US federal corporate income tax is 35 percent of profits; royalty payments are counted as a deduction. He noted this concluded his review of the five fiscal regimes.

CHAIR HUGGINS welcomed Senator Ellis.

[12:15:51 PM](#)

DR. WILLIAMS said one thing he'd learned as he put these tables together was the complexity of each regime, particularly Alberta. Turning to slide 12, "Key Factors," he told members he would review the following: 1) prospectivity; 2) costs; 3) two categories of risk - political risk and fiscal stability; 4) the capital depreciation time frame, the speed at which a company gets its investment back; and 5) government take.

DR. WILLIAMS showed slide 13, "Attractiveness of Oil & Gas Resources," subtitled "All Exploration & Discoveries Since 1990; Reserves are Reserves Added Since 1990." He said for everywhere except Alaska, data in this chart comes from PFC Energy's

September 2007 study; Alaska's data is from the Alaska Oil & Gas Conservation Commission (AOGCC) and DNR.

SENATOR STEVENS asked why the chart is organized as it is, with Alaska in the center.

DR. WILLIAMS answered it is sorted by reserves found per well drilled. It isn't the only way it could have been sorted.

AN UNIDENTIFIED SPEAKER suggested Alaska is in the mean.

DR. WILLIAMS agreed.

SENATOR WIELECHOWSKI questioned whether this actually contains all new discoveries since 1990.

DR. WILLIAMS replied no, it's not all of them. About 30 countries were reviewed, and Mr. Wucherpfennig of PFC Energy prepared this. Dr. Williams said he believed these were the projects tracked. He pointed out that slide 13 shows a good range, from Angola to Argentina. This is recent data, since 1990. The first column shows countries; the next shows exploration wells drilled in a country since 1990; discovery wells since 1990 are next; and then it shows wells per discovery. In Angola, for instance, a little more than two wells must be drilled in order to get a discovery. The number of exploration wells is divided by the discoveries in order to get the success rate, shown in the next column, followed by columns showing reserves that were booked and reserves per well.

DR. WILLIAMS reiterated that this particular table is sorted by reserves per well that were found. Angola - shown at the top of the chart - has been prolific, with a high success rate and a great deal of oil uncovered. In many regards, Angola would top the list no matter how the data were sorted.

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CHAIR HUGGINS noted the chart lists 6.9 wells per discovery for Alaska. He surmised data can be provided with respect to costs in different areas per well.

DR. WILLIAMS replied that isn't as easy to get as one might think. To drill a well, a company must get a permit; thus there is some record. But the actual cost is confidential. Prior to PPT there was no historical base of costs. Right now, the costs are all on leases, so they aren't known on a per-well basis. There are estimates only.

CHAIR HUGGINS requested that Dr. Williams provide those estimates.

SENATOR WIELECHOWSKI observed that although Angola and Nigeria have huge amounts of oil, the countries are impoverished. He asked where the money goes.

DR. WILLIAMS noted these issues are beyond the scope here, but there is a lot of corruption in some countries, and it is a distribution issue.

AN UNIDENTIFIED SPEAKER remarked that there is a 14 billion barrel prize in Angola that they successfully brought home. At the end of the day, that says a lot.

SENATOR STEDMAN asked about the significance of the reserve-to-well ratio. He recalled testimony during PPT hearings about the lack of exploration and development in the Arctic, including the number of wells drilled in Oklahoma, Texas, and elsewhere relative to Alaska. He expressed the desire to get ANS production up and into the oil line. He noted the chart shows Alaska as having 138 exploration wells, whereas Norway has 369 and the UK almost 1,200. He asked if he was missing something.

DR. WILLIAMS replied the data are what they are. Noting that companies look around the world, he referenced Ms. Davis's testimony with respect to a company's portfolio and investment decisions. On slide 13, the right-hand column shows reserves per well drilled. In terms of statistics, if a company wants to go where the success rate is high, that is part of it. But it isn't the only factor. A company wants to have a small portion in the more secure areas.

DR. WILLIAMS brought up a difference between Alaska and the North Sea. The latter has offshore production. A lot of time is spent constructing a huge platform, but then drilling can take place year-round. By contrast, Alaska's North Slope has constraints because of weather patterns. There is limited time. He said this must have an effect. The big-picture view is to try to diversify the portfolio.

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SENATOR WIELECHOWSKI highlighted the importance of this topic. He said in the 1990s and earlier this decade, Alaska had ELF and what he'd heard was the lowest tax rate in the world. For BP and Conoco this was one of the most profitable regions in the

world, and they made 35 percent profit, to his understanding - billions of dollars. Furthermore, Alaska has a stable government. So why hasn't there been more investment? And how can it be known whether what is being done here, providing numerous tax breaks and incentives, will encourage investment, when Alaska has had the lowest tax rates in the world?

MR. BANKS predicted this chart will reappear frequently. It goes to a point that will be discussed tomorrow in terms of how producers view Alaska. He surmised producers don't measure government take when calculating whether to invest; rather, they're interested in their own take, how much money they can make. Then they assess risk, including stability, fiscal regimes, and so on. They also account for geology as well as proximity and access to markets.

MR. BANKS cautioned against underestimating that proximity and access with respect to Alaska, as well as access to land and facilities. He opined that those areas are improving, since in some cases they relate to problems with market institutions, although a lot of help can be provided through tax incentives and so forth. The chart also illustrates that Alaska is slightly better off than the UK, for instance, in terms of how much oil can be found when a well is drilled. But drilling even in the North Sea is easier than in Alaska because of climate and other issues related to land access.

[12:28:11 PM](#)

SENATOR STEDMAN questioned Senator Wielechowski's recollection about Alaska having the lowest tax rate in the world.

SENATOR McGUIRE said it used to be.

SENATOR STEDMAN recalled hearing concern from the industry that Alaska has the highest rate in North America and that with PPT it would go higher.

SENATOR McGUIRE mentioned warehousing and asked whether there is any truth to the notion that companies look at known reserves in order to decide where to develop certain leases before others. Referring to the chart, she said it is a lot of known reserves.

MR. RUGGIERO explained investment decision making for a company. Each year, a company goes through a process to estimate next year's capital expenditures. First, they subtract from those capital dollars anything under construction or in development for which they are committed to continue. Then they look at the

remaining dollars. Some get allocated to the longer term; this includes wildcat or frontier exploration that may feed the pipeline in 10 or 15 years. Then they look at opportunities for more midterm development and look at their contractual position. This relates to the warehousing mentioned by Senator McGuire.

MR. RUGGIERO elaborated, posing a scenario in which a company has room to do either Project A or Project B. Project A is located where the legal contract with the regime allows sitting for a while. Project B is with a regime that requires action in the next year or two or else relinquishing half or all of the acreage. The company decides whether the prospectivity - the likelihood of finding oil - is good enough for Project B that it wants to invest there. He recalled that when he was on a committee where those decisions were made, this did play a very big part in deciding where to spend the company's exploration and capital dollars for the coming year.

[12:31:28 PM](#)

SENATOR WIELECHOWSKI clarified that the numbers he'd seen showed that at \$60 a barrel Alaska was the lowest-taxing oil-producing region in the world. That was in the past. He then said he wonders whether, to some degree, Alaska's stability works against it. For instance, do producers believe they can sit on their Alaskan leases but must act on fields in Angola or elsewhere because of instability?

MR. RUGGIERO said he couldn't provide insight into today's boardrooms, but awhile back, when he worked for "big oil," those types of things came into play. Investments were directed at where the successes lay.

MR. GEORGE added there is no doubt that political risk stability is one factor in the decision. The other key factor is that the contracts themselves have some "use it or lose it" provisions. There are numerous forms of contracts around the world, even within individual countries. Many countries also have provisions with respect to individual discoveries, with slight variations. The licensing terms in the UK have changed many times over the years; this relates to individual licenses, not taxation.

MR. GEORGE continued. He said licensing rounds in the early 1970s gave rise to many of the discoveries that are out there; under one license there were several different blocks in different geographic locations, and there were relinquishment patterns. To his recollection, for example, after 6 or 10 years

a company had to relinquish up to half, and there were 40-year terms. Companies had discoveries they weren't doing anything with because those didn't fit the timing or pattern. In the late 1990s or a little after, however, the UK came up with a fallow acreage initiative. Because of the discretionary nature of the licensing system, the UK couldn't just take licenses away, but could use this arm-twisting in the next round. He said everyone is aware of this issue around the world, and there are different ways of dealing with it.

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CHAIR HUGGINS alluded to Alaska's 6.9 wells shown on slide 13 in the column marked "Wells per Discovery." He recalled hearing that the wild card in Alaska is the proposed gas pipeline. He opined that if gas were found and could get to market, it could raise interest in lowering the price of drilling those wells.

MR. GEORGE replied he wasn't sure how much it would instantly lower the cost of the exploration dollar at the front end, but it certainly would change the level of interest. He cited Australia as place with more offshore gas than it can put into the market in the current timeframe, so people don't explore for gas, even if it seems fairly certain. Instead, they sit and wait until there is a hole in the market. In Alaska's case, it is the pipeline.

MR. RUGGIERO pointed out that the presence of known quantities of easy-to-produce gas might scare some away from exploring for new gas, knowing that if they ultimately got the economics or the backing to put a pipeline in, the easiest gas to produce would take over and be first down the line, for several years to come.

MR. RUGGIERO referred to testimony and rebuttal last year about results from the UK tax changes. In 1993, to his belief, the UK eliminated all taxes except for corporate income tax; thus it was receiving no rent for its mineral resources being extracted. There were curves put up by BP about the immediate increase in production. However, this production was offshore. How long would it take to put a field into production? He offered his recollection that the fastest that occurred included at least two years' construction time from the point of receiving development approval from boards and the government.

MR. RUGGIERO said most of the production increase, furthermore, was in "barrels of oil equivalent." A lot of that production was gas. During that timeframe, the company he worked for

drilled a lot of those wells and laid a pipeline that opened up a whole new area to production in the UK; that was all gas production. The driver wasn't the change in the taxes. Rather, it was the "dash for gas," as that decade is known in the UK. No longer was British Gas (BG) the sole buyer of gas. Independent power producers could come in and build power stations fueled by natural gas. To his recollection, prior to 1990 the UK had a ban on natural gas for any new power stations. That ban was removed.

MR. RUGGIERO continued, highlighting the combination of BG's monopoly being broken and the ban on gas for power stations being lifted. He said the bulk of development was not as a result of just going to the corporate income tax, at least for decisions in the company he was working for. Instead of \$1.20 as the price for gas, it was above \$2.00, and it was sold on flat production each year, instead of the traditional BG situation where he'd sold ten times more gas in the winter than in the summer.

MR. RUGGIERO said a number of factors changed in the basic mechanics of the business, driving a lot of that development. While other oil fields in inventory were brought forward and the tax change had a major impact in this regard, much of what he is familiar with, relating to development, was from the dash for gas, the power market, and other factors. At that time, the UK recognized it had a lot of gas that it didn't know what to do with. There was an interconnection pipeline project between the UK and Belgium, for instance. Because there wasn't an obligation to sell the gas into the UK or to BG, a number of players found markets on the continent. Furthermore, a number of gas-condensate fields got developed, adding to the production curve on a "barrel of oil equivalent" basis for export down the interconnecting pipeline.

MR. RUGGIERO cautioned that sometimes it is dangerous to claim the lowest tax rate, as was the case in the UK. Highlighting what this did to the production, he said it was a factor, but to him it was a small factor at that point as to what actually drove development and activity.

[12:42:02 PM](#)

MR. RUGGIERO showed a slide not included in the handout, responding to Senator Stedman's earlier query as to why particular countries were chosen as comparisons. He explained that it shows a survey of where "exploration dollars" were spent. Whereas 12 or 13 years ago Latin America, the Asian

Pacific, and Australia had a lot of activity, by 2000 it was shifting. In 2006, West Africa and North Africa - Libya, Algeria, Egypt, and so on - were highly active. This is where some discretionary dollars for oil companies were being spent.

MR. RUGGIERO highlighted the herd mentality: Nobody wants to be left behind if something good is found, or to be the last to turn off the lights when things go bad. He said the right country with which to compare Alaska in terms of ACES would be different in each timeframe, depending on what was happening both at home and with respect to what was available elsewhere.

[12:44:25 PM](#)

SENATOR WIELECHOWSKI recalled advertisements predicting oil companies will leave Alaska if taxes are raised. He requested an opinion, considering that many countries, particularly Angola and Nigeria, have a higher tax rate than proposed under ACES.

MR. RUGGIERO responded by showing an extraction from the online UK database, a spreadsheet for all fields when they received development approval. First production was two to four years after this approval. He asked: Do lower taxes drive investment? He noted that Column A lists the year, and Column B shows changes to the tax regime. In 1976, for example, the Petroleum Revenue Tax was added; although it was raised in 1979, there still were a number of developments. He then showed a spreadsheet for everybody and every field, noting its creator, BP, had provided the rebuttal presentation referenced earlier about what the tax break did or didn't do.

MR. RUGGIERO indicated his own figures were for the "prior BP" as well as part of BP's incarnation in the UK, Amoco. He also indicated that whether these were oil, condensate, or gas fields was designated by three different colors to correlate with UK government designations. Highlighting 1993-2002, he said the UK was receiving no rent for its mineral resource, since the petroleum tax, other than corporate income tax, was zero. In 1994-1995, a number of projects were brought forward, but this zero petroleum tax existed for nine years. Then, from late 1996-2002, BP brought forth one development on the oil side, although a couple of minor gas developments were brought forward. Even though the state rent was zero for that extended period of time, BP didn't bring forward any recommendation to get approval for additional field development, other than what it had on the shelf.

MR. RUGGIERO summarized that the effective tax rate is not the sole criterion upon which oil companies decide where to invest. They are in business to make a profit. Thus oil companies invest where they believe they have the best chance of doing so. The tax rate is just one mechanism within their modeling that gives them an idea of what their chances are.

12:49:17 PM

SENATOR GREEN asked whether the aforementioned figures reflect an impact from the price of oil around the world.

MR. RUGGIERO suggested looking at the overall survey to determine total dollars spent by the industry. He agreed that as prices rise, profits go up and companies tend to allocate more to their capital programs; as profits come down with prices, they tend to allocate less to their overall programs. He stressed that although the state rent on the UK's resource was zero, BP was out exploring and spending dollars in other countries where the state rent on the resource was quite high.

DR. WILLIAMS emphasized that when an oil company pays a production tax in Alaska, it is considered an ordinary and necessary expense that is deductible when computing the corporate income tax.

SENATOR McGUIRE asked: If the desire is to incentivize development, should we consider whether the terms of the leases reasonably encourage companies to develop more quickly?

MR. GEORGE answered yes, with qualifiers. There must be a reasonable period of time for companies to do something with it and decide whether it is worthwhile. If the decision is no, then someone else should be given a chance. That is the generic philosophy.

SENATOR McGUIRE asked what a reasonable period is.

MR. GEORGE replied it depends on the location in the world. Quite often there are gas-exclusion clauses, particularly for market conditions: If a company cannot give gas away, it is allowed to request consideration such as access to infrastructure, getting into the market, and so forth. Typically, there is relinquishment of one-quarter after perhaps three or four years, with maybe another one-quarter to one-half after a similar period. After eight to ten years it would be what the company is able to produce or get into the development phase, and the rest is exploration acreage and so forth.

12:53:03 PM

MR. RUGGIERO noted Mr. George had discussed the time for a company to go out and drill. Mr. Ruggiero explained that there can be a dry hole, and then the company is subject to these relinquishments. But if the company has what it believes to be a discovery, it is generally allowed one or two years to do appraisal drilling. After that, the company has to declare it as noncommercial or commercial. If the latter, there may be another two years to bring forward a development plan for approval by the entity. The reason for declaring a commercial discovery is the ability to draw a line around the discovery, which is then withdrawn from the relinquishment requirement.

MR. RUGGIERO continued. He said for oil there generally is a need to move quickly. For gas, because of the issues relating to remote gas, there usually is a gas-retention period. In one contract Gaffney Cline recently helped to develop, for instance, an additional seven years is allowed for gas in order to develop the market and significant infrastructure generally needed to monetize it.

SENATOR STEDMAN requested another showing of the slide that relates to the changing geographical regions over time. He recalled hearing at the Energy Council about a change in West Africa, and the slide depicts that development nonexistent in 1994, but showing up in 2000 and taking a substantial portion in 2006. He recalled that the discussion revolved around security issues, including shipping lanes and shipping access to the United States, with the expectation of more development in West Africa because of access to secure shipping lanes.

MR. GEORGE replied he didn't know about that one, but a significant driving factor in West Africa was the effective availability of deepwater exploration. The industry was just starting to move into deep water in these time periods.

MR. RUGGIERO indicated the slide showed basically no deepwater development in the mid-1990s. With advancements in technology and seismic ability to make better predictions, there was an explosion of exploration and development of deepwater prospects.

SENATOR WIELECHOWSKI asked: What other tools, besides cutting taxes, exist to get more investment? And what needs to be done in Alaska as either a carrot or stick to increase exploration?

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MR. GEORGE answered in part that Gaffney Cline looks at this like a three-legged stool that is inherently unstable if any leg is out of kilter. Fiscal policy is an important part of it. It must be tailored to the prospectivity, the opportunity, the cost environment, and the geology - the ability to make something of it - as well as the administrative environment. Some countries are difficult to operate in, even if in theory they look fairly good. All are taken together. Returning to the question of where the right tax point lies, he highlighted Ms. Davis' testimony that there isn't an exact point, but is a range in which people will do things. That is the hard judgment call everyone has to make.

SENATOR WIELECHOWSKI asked how Alaska's geology compares with other places. He also asked whether there is anything administrative that needs to be done. For example, is there too much bureaucracy or too many regulations?

MR. GEORGE replied it wasn't something Gaffney Cline had been asked to look at, and thus it would be hard to answer in detail. More generically, though, perception is a large part of it where they've been involved in licensing rounds. A good relationship between the industry and regulators is important because it builds that confidence; all else being equal, this can make the difference. He cited Venezuela as an example where there was good geology to begin with, gradual changes in more recent years that created a set of terms the industry could live with, marketing, providing information to the industry, and opening up and making the industry feel welcome. All work together.

[1:00:40 PM](#)

CHAIR HUGGINS expressed concern about the testimony that tax changes alone aren't the driving force. He asked what the driving forces are, using some scientific approach. He requested examples and perhaps a closer peer group for Alaska the next time the testifiers appear before the committee.

SENATOR WAGONER referred to mention of Alaska's corporate income tax rate at 9.4 percent. He surmised this isn't the effective tax rate. He gave his understanding that a company can subtract its expenses from that 9.4 percent, and that the effective tax rate for oil companies is about 3.0 to 3.5 percent.

DR. WILLIAMS replied this may be a definitional issue. He asked members to think about computing their own federal income tax. There is gross income, with certain deductions allowed; the tax rate; and a number labeled taxable income. He clarified that by

"effective tax rate" he meant what was actually paid in tax divided by the taxable income. There are certain deductions allowed. At the state level, modified apportionment is used. The effective tax rate for state corporate income tax is about 9.2 percent, with a graduated rate to almost 9.4 percent.

SENATOR WAGONER emphasized the bottom line, what is actually paid. He asked whether they pay 9.4 percent or 3 percent.

DR. WILLIAMS replied it is approximately that on taxable income. He again said this may be a definitional issue.

CHAIR HUGGINS asked Dr. Williams to address this issue when he comes before the committee again. He thanked the testifiers and held SB 2001 over.

There being no further business to come before the committee, Chair Huggins adjourned the Senate Resources Standing Committee meeting at [1:04:19 PM](#).