

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

March 15, 2006

3:37 p.m.

MEMBERS PRESENT

Senator Thomas Wagoner, Chair
Senator Ralph Seekins, Vice Chair
Senator Ben Stevens
Senator Fred Dyson
Senator Bert Stedman
Senator Kim Elton

MEMBERS ABSENT

Senator Albert Kookesh

OTHER MEMBERS PRESENT

Senator Gene Therriault

COMMITTEE CALENDAR

SENATE BILL NO. 305

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

production of oil or gas; relating to the determination of the net value of taxable oil and gas for purposes of a production tax on the net value of oil and gas; relating to the definitions of 'gas,' 'oil,' and certain other terms for purposes of AS 43.55; making conforming amendments; and providing for an effective date."

HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 305

SHORT TITLE: OIL AND GAS PRODUCTION TAX

SPONSOR(S): RULES BY REQUEST OF THE GOVERNOR

02/21/06	(S)	READ THE FIRST TIME - REFERRALS
02/21/06	(S)	RES, FIN
02/22/06	(S)	RES AT 3:30 PM BUTROVICH 205
02/22/06	(S)	Heard & Held
02/22/06	(S)	MINUTE(RES)
02/23/06	(S)	RES AT 3:30 PM BUTROVICH 205
02/23/06	(S)	Heard & Held
02/23/06	(S)	MINUTE(RES)
02/24/06	(S)	RES AT 3:30 PM BUTROVICH 205
02/24/06	(S)	Heard & Held
02/24/06	(S)	MINUTE(RES)
02/25/06	(S)	RES AT 9:00 AM BUTROVICH 205
02/25/06	(S)	-- Reconvene from 02/24/06 --
02/25/06	(H)	RES AT 10:00 AM SENATE FINANCE 532
02/25/06	(S)	Heard & Held
02/25/06	(S)	MINUTE(RES)
02/27/06	(S)	RES AT 3:30 PM BUTROVICH 205
02/27/06	(S)	Heard & Held
02/27/06	(S)	MINUTE(RES)
02/28/06	(S)	RES AT 3:30 PM BUTROVICH 205
02/28/06	(S)	Heard & Held
02/28/06	(S)	MINUTE(RES)
03/01/06	(S)	RES AT 3:30 PM BUTROVICH 205
03/01/06	(S)	Heard & Held
03/01/06	(S)	MINUTE(RES)
03/02/06	(S)	RES AT 1:30 PM BUTROVICH 205
03/02/06	(S)	Heard & Held
03/02/06	(S)	MINUTE(RES)
03/02/06	(S)	RES AT 3:30 PM BUTROVICH 205
03/02/06	(S)	Heard & Held
03/02/06	(S)	MINUTE(RES)
03/03/06	(S)	RES AT 3:30 PM BUTROVICH 205
03/03/06	(S)	-- Meeting Canceled --

03/04/06 (S) RES AT 10:00 AM SENATE FINANCE 532
 03/04/06 (S) Presentation by Legislative Consultants
 03/06/06 (S) RES AT 3:30 PM SENATE FINANCE 532
 03/06/06 (S) Heard & Held
 03/06/06 (S) MINUTE(RES)
 03/07/06 (S) RES AT 3:30 PM BUTROVICH 205
 03/07/06 (S) Heard & Held
 03/07/06 (S) MINUTE(RES)
 03/08/06 (S) RES AT 3:30 PM BUTROVICH 205
 03/08/06 (S) -- Meeting Canceled --
 03/09/06 (S) RES AT 3:30 PM BUTROVICH 205
 03/09/06 (S) -- Meeting Canceled --
 03/10/06 (S) RES AT 3:30 PM BUTROVICH 205
 03/10/06 (S) -- Meeting Canceled --
 03/11/06 (H) RES AT 10:00 AM CAPITOL 106
 03/11/06 (H) -- Meeting Canceled --
 03/13/06 (S) RES AT 3:30 PM BUTROVICH 205
 03/13/06 (S) Heard & Held
 03/13/06 (S) MINUTE(RES)
 03/14/06 (S) RES AT 3:30 PM BUTROVICH 205
 03/14/06 (S) Heard & Held
 03/14/06 (S) MINUTE(RES)
 03/15/06 (S) RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

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ACTION NARRATIVE

CHAIR THOMAS WAGONER called the Senate Resources Standing Committee meeting to order at [3:37:18 PM](#). Present were Senators Elton, Dyson, Stedman, Ben Stevens and Chair Thomas Wagoner. He announced that they would hear the final presentation on the questions the legislature asked the administration on SB 305.

SB 305-OIL AND GAS PRODUCTION TAX

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CHAIR THOMAS WAGONER announced SB 305 to be up for consideration and that Dan Dickinson and Cheri Nienhuis would address the committee's questions to the administration.

DAN DICKINSON, CPA, Consultant to the Governor, said that Robert Mintz, Assistant Attorney General, Sharon Nienhuis, Petroleum Economist, Department of Revenue, and Roger Marks, Economist, Department of Revenue would assist in the presentation. He recapped that a lot of the answers to the 91 questions had already been answered. Twenty are remaining to be answered today. He jumped in at question 22. [The answers to the questions correspond to the Department of Revenue's letter to Senator Wagoner, Chairman, Senate Resources Committee, and Representatives Samuels and Ramras, Co-chairmen, House Resources Committee, dated March 15, 2006. The answers are indented, but not necessarily verbatim, for this document.]

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22. Please provide an identification of the point of production at each unit in the state under existing statutes, regulations, agreements, and court decisions. Provide the same under the definition as proposed.

He answered the point of production for crude oil would not change under the proposal and would remain the point where the oil is first metered or measured in a condition of pipeline quality. (Note that certain oil used on the lease will no longer be taxable under the proposed production tax reforms, but that is not a point of production issue.) As examples, the points of production for oil are and will be the LACT (lease automatic custody transfer) meters at the inlets to TAPS (for Prudhoe Bay) and the Kuparuk Pipeline (for Kuparuk), and at the onshore production facilities for the Cook Inlet platforms.

What will change, in some cases, is the point of production for some gas. At Prudhoe Bay, while the current point of production for most gas is the inlet to the Central Gas Facility (CGF), there are other potential points of production for other gas uses. For example, in the separation facilities, gas is taken right out of the flow stream and burned in that facility (however this gas is not taxable under the free use of gas rules).

For taxable gas, the inlet to the CGF is generally the point of production for all gas that emerges from the CGF, including the NGLs that are recovered in liquid form. This compares to other gas plants that are or have been operating at Kuparuk, Endicott, and Lisburne. For these facilities, the point of production for gas under current law is the outlet where the facility is tied to a sales or other line that take the gas off the unit. Why? Because in each of these facilities, the liquid hydrocarbons extracted from the processed gaseous stream are reblended with oil and run through gas-oil separators again. Therefore, the gaseous stream entering the facility has not yet been completely separated from oil and the point of production for gas must be downstream of the facility. Under the bill, all gas processing operations (as long as they do not also include gas treatment) are considered upstream of the point of production. Therefore, the point of production for gas run through the Prudhoe Bay CGF will be where the gas is metered after leaving the CGF. In this respect, the point of production for gas will change at Prudhoe Bay but remain the same - downstream of the gas processing

facilities - at the other North Slope fields using gas processing.

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SENATOR SEEKINS joined the committee.

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23. Please provide an identification of "gas treatment" and "gas processing" facilities in the state under the existing statutes, regulations, agreements, and court decisions. Provide the same under the definition as proposed.

To date in administering the tax, there are no gas treatment facilities on the North Slope. The only "gas processing plant" currently in the state is the Central Gas Facility (CGF), because by definition in the department's regulations, a facility is a gas processing plant only if it is located downstream of the point of production for gas (15 AAC 55.900(b)(7)). Under the definitions in the bill, it will no longer matter whether a facility is a "gas processing plant." All four of the North Slope facilities will continue to be characterized as conducting "gas processing," which will be upstream of the point of production for gas.

Under the proposed definitions, plants removing CO2 and H2S from gas for delivery to a sales line, which in the sponsor group proposal is assigned to a new Gas Treatment Plant (GTP), would be a new Gas Treatment Plant.

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SENATOR BEN STEVENS asked to go back to question 22. He asked if the Pt. Thomson facility would be built the same as other North Slope facilities using gas processing and Prudhoe Bay so they would all be functioning the same.

MR. DICKINSON replied yes - at the outlet of those plants. "If there is gas processing going on in the plants - if that's where the separation between the stream that become gas and the stream that become oil." He said the definition has four characteristics, but he was trying to line them up the same.

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SENATOR SEEKINS apologized for arriving late and asked if the point of production is where a future pipeline would begin and

if the tariff costs start at that point with deductible costs under the PPT behind that point.

MR. DICKINSON replied yes and added that that's how it works for oil now. The problem with gas is that it has traditionally been sold with lots of liquids still in it and the state doesn't have a clean definition of pipeline quality being transferred to it. The notion is that the last step needed to get ready for pipeline quality is now being called "gas treatment." So, the gas treatment plant would be tariffed and PPT type credits would not apply for it. The point of production would be at the boundary where you were entering gas treatment, anything upstream would be upstream of the point of production and would be gas processing; all the PPT benefits, credits and deductions would apply.

SENATOR SEEKINS asked if the dehydration plant is all PPT deductible. He asked if the envelope could carry the liquids and those get stripped out for some other reason, is that stripping plant deductible.

MR. DICKINSON replied that gas processing in general would take out the valuable liquids. People would make economic decisions about them. Now they are put in TAPS and that will continue to happen, in general, because transforming them into oil is their highest value. If a gas line is built and enters into an integrated system someplace down the road at a "straddle plant" that pulls out methane or butanes, those decisions will be made at the time. He said the heavier hydro-carbon liquids will be stripped out to make it pipeline quality.

SENATOR SEEKINS asked if that straddle plant would be deductible under the PPT.

MR. DICKINSON replied the building of the plant would not be eligible for a credit; it would be deductible as a transportation cost when the gas that was stripped out will be valued, but it will be on the same basis as a pipeline or tanker.

SENATOR SEEKINS said he wanted a good idea on where the deduction on the PPT ended and where the tariff on gas began.

MR. DICKINSON finished answering question 23 saying that gas treatment is where CO₂ and H₂S are removed. There may be some use for those for enhanced oil recovery, but on the other hand, it could be a big problem and the question is how to deal with

it. "But it's going to have to be stripped out before it goes into the pipeline."

He skipped ahead to question 27.

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27. How will AS 43.55.160(j) protect the state from a proliferation of corporate entities and/or companies claiming the tax-free allowance? (He explained these are standards that the commissioner uses to determine whether a company qualifies for the \$73 million allowance.)

AS 43.55.160(j) does not establish a maximum number of companies entering the market that could utilize the standard allowance. However, this section requires that the Department of Revenue evaluate each company claiming the deduction, on an annual basis, to determine if the company qualifies for the deduction. This section goes on to require the company to show that it has not split operations or property ownership among multiple entities in order to gain usage of multiple \$73M deductions, when only one deduction should have been granted.

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SENATOR SEEKINS asked if Seekins Oil Company has a standard deduction and joint ventures with a new company, does he get an additional deduction through that joint venture.

MR. DICKINSON replied that the difficulty is going to be that joint ventures are an economic fact of life and the state isn't trying to warp that situation. If a joint venture were created without creating a new entity, that wouldn't occur.

SENATOR SEEKINS asked if he would get it if he were under a corporate structure of a new company as a shareholder.

MR. DICKINSON replied that is the nub of the issue. "Whatever rules we set up, you'll probably find folks who wanted to avoid them taking it one step further." So, the standard was set up so that the commissioner could look at the transaction and determine whether a company has demonstrated it has intended to simply split value to take advantage of that allowance, and he wouldn't allow it.

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SENATOR ELTON followed up asking if this would be further defined in regulations or does the department or commissioner apply an ad hoc process.

MR. DICKINSON replied that whether it becomes a regulatory issue or not depends on the activity. If there were a whole lot of controversial claims, regulations would be written or the legislature may chose to revisit it.

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29. Provide estimates for undiscovered resources in Alaska. Include the breakdown between technically recoverable and economically recoverable resources to the extent possible.

Resources estimated are those that would enter the TAPS north of the Brooks Range. These include estimates of recoverable oil from the National Petroleum Reserve - Alaska [NPRA], the Central North Slope, the Beaufort Sea and the Alaska National Wildlife Refuge [ANWR]. Estimates are presented in terms of barrels of technically and economically recoverable reserves. Technically recoverable estimates are mean estimates. Economic recovery is based upon the Department of Revenue [DOR] long term forecast of Alaska North Slope [ANS] crude oil delivered on the west coast at \$25.50 per barrel in nominal terms.

For purposes of analysis, all economically recoverable oil is presumed to be produced by 2046 [within 45 years]. Estimates are obtained from United State Federal government sources - the United States Geological Service [USGS], the Minerals Management Service [MMS] and the Energy Information Administration [EIA].

Technically Economically Natural Gas:

NPRA	10.6 Bbl	2.95 Bbl	59.7 Tcf
Central North Slope	3.98 Bbl	0.88 Bbl	35 Tcf
Beaufort Sea	6.94 Bbl	1.79 Bbl	Remainder plus
existing PBUANWR	10.40 Bbl	4.21 Bbl	
Total	32.38 Bbl	9.83 Bbl	200 Tcf +

. NPRA - The entire area is estimated to contain 10.6 billion barrels of technically recoverable oil. Economically recoverable reserves consist of 2.95 billion barrels of oil.1 (U.S. Geological Survey,

2002, Petroleum Resource Assessment of the National Petroleum Reserve in Alaska (NPRA), USGS Fact Sheet 045-02, Table 3 and Figure 7).

. Central North Slope - The technically recoverable yet-to-be-discovered barrels of oil are estimated at 3.98 billion. Economically recoverable reserves are set at 0.88 billion barrels (USGS, 2005, Economics of Undiscovered Oil and Gas in the Central North Slope, Alaska, Open-File Rpt 2005-1276, Table 5)

. Beaufort Sea - There are 6.94 billion barrels of oil technically recoverable. Economically recoverable reserves during the period under consideration are set at 1.79 billion barrels, the mean estimate at lower oil prices. (Mineral Management Service, Beaufort Sea Planning Area Oil and Gas Lease Sales 186, 195, and 202 OCS FEIS, 2003, MMS 2003-001, Appendix B, Table B-1)

. ANWR - There are 10.4 billion barrels of technically recoverable oil. Economically recoverable reserves consist of 4.21 billion barrels. (Energy Information Administration, Analysis of Oil and Gas Production in the Arctic National Wildlife Refuge, March 2004, pg 5 and Table 1)

. Natural Gas - Most natural gas that is technically recoverable is considered economically recoverable provided there is a means of transmission to market. Assuming gas flow through a pipeline beginning in 2015, the period through 2046 production totals 49.6 trillion cubic feet. Best estimates of natural gas reserves on the North Slope far exceed this amount and include: proven reserves - 35 trillion cubic feet within Prudhoe Bay Field, Pt. Thomson, and other fields (EIA, March 2004), NPRA - 59.7 trillion cubic feet (USGS Fact Sheet 045-02); and, together with ANWR and offshore undiscovered reserves totals above 200 trillion cubic feet (USGS, Conventional Natural Gas Resource Potential, Alaska North Slope, 2004, Rpt 20041440).

The studies also set ranges for technically recoverable oil with a 5 percent and 95 percent confidence interval. These wide ranges are presented below. Economically recoverable estimates were based

on 2001 dollars so that \$23.50 equates to approximately \$25.50 in 2005 dollars.

Recoverable oil volumes will vary by price of oil. However, higher valued oil will also be higher cost oil to produce with each increase in price resulting in increased volume strictly related to the cost of production.

Range of Technically Recoverable Oil - 5th Percentile
Mean 95th Percentile:

NPRA 5.90 Bbl 10.6 Bbl 13.20 Bbl
Central North Slope 2.87 Bbl 3.98 Bbl 5.85 Bbl
Beaufort Sea 3.56 Bbl 6.94 Bbl 11.84 Bbl
ANWR 5.70 Bbl 10.40 Bbl 16.00 Bbl

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31. How will Net Profit Share Leases (NPSL's) be affected by this legislation? Will the gross costs of exploration and development go into the Development Account - or those costs' net of the credits and deductions?

Production taxes are currently deductible for NPSL purposes. This legislation is not intended to change the deductibility of the production tax. However, NPSL leases are administered by the Department of Natural Resources, which is better equipped to address these questions and which we understand is doing so. Also see Question 58.

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33. Of the pre-PPT credit provisions (or claw back), what is the cost to the state for legacy fields and what is the cost to the state for frontier regimes?

Also see Question 20. The assumption made for this request is that the Pre-PPT cost claw-back will be the last adjustment made to the tax. All other deductions and credits allowed under the PPT will have been exercised. There was approximately \$4.8 billion of capitalized investment made by the industry during in the period 2001 through 2006.

Using the Department of Revenue price forecast, which has prices falling and remaining below \$40 after 2008:

- . Legacy Field Owners: \$316.6 million
- . Frontier Field Owners: None. Due to no production or the inability to generate revenues sufficient to have a tax liability after other deductions or credits are taken.

Assuming a flat price of \$45 for 2007-2050:

- . Legacy Field Owners: \$935 million
- . Frontier Field Owners: 15 million
- . Total \$950 million

Assuming a flat price of \$60 for 2007-2050:

- . Legacy Field Owners: \$936 million
- . Frontier Field Owners: 15 million
- . Total \$951 million

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49. What is the estimated economic impact to the state of the ability to sell tax credits?

He advised them to focus on page 21 that had a summary of costs he used in modeling what happens. The very conservative estimate, which is without a gasline and without any additional fines, no additional oil outside of the department's forecast, he sees total capital spending at around \$25 billion. On the other extreme, if the gasline gets built and there is a lot of additional exploration, the number would be more than twice that at \$55 billion.

The next question people focused, he said, was on saturation and what would happen with the credits in the marketplace. Will the credits be used up or will they "go begging," will the small producer not really get the effect of the credits, because they can't do anything with them. His analysis, which used a \$40 per barrel price, showed how much of the production tax, itself, would be reduced by credits and depending on which scenario is used, it went from a low of about 25 percent to a high of close to 40 percent, but in no case did he find that the market would become saturated. He said the sensitivity analysis was run with a 95 percent production by the majors and room was found for them to be used even if the producers have most of payments and the smaller users have 25

percent of the credits. Saturation might occur if the price was much lower than \$40.

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54. Section 21, page 13, line 8 – why is this clause constrained by Dec. 1, 2005?

This constraint is intended to avoid industry changing cost allocations in contemplation of this legislation, in order to avoid taxation.

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68. How is it possible that any corporation gets triple the sale price for a commodity, having invested capital at the expected lower returns, and then maintains that they need a claw back provision? Why should we offer it?

a. The first part of this question appears to be intended to be answered by oil companies.

b. We should offer a transition deduction because we are converting from a tax on gross to a tax on net value. When measuring net value, it is necessary to allow deductions, not only for current expenses, but also a deduction for the capital investment that is generating the value. For new assets acquired after the PPT is in effect, a full deduction for the cost the capital investment is allowed in the year acquired. Assets acquired within the last five years are currently producing taxable oil and gas, and a deduction should be allowed for, in effect, depreciation on those assets.

4:01:09 PM

69. Please show us an international competitiveness rank and score for PPT under the following tax/credit scenarios, both overall and for new producers:

- a. 30/15
- b. 30/20
- c. 25/20
- d. 20/20

MR. DICKINSON explained that Dr. Pedro Van Meurs formulated this question that has as its answer a bunch of tables. However, he explained that he ran his competitiveness rankings, basing those on the four different scenarios (above). His analyses were for the large producer economics and for the new investors.

The conclusion is that the PPT puts the state in a better position internationally among the peers that he ranks than the current system does. This is true for the larger producer economics and especially true for the new investor economics.

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SENATOR STEDMAN asked if anything in his tables would put Alaska at a competitive disadvantage.

MR. DICKINSON replied the short answer is no; but the ones with the more ambitious tax credits place the state in a better position than the ones that have either the lower credits or the higher tax rates. He suggested that the overview on page 32 was the best way of looking at that. No matter which scheme you look at, things look more attractive to the new small investor and lot of that has to do with their focus on the credits and the allowance. The large producers, at 20/20, you can expect more investment; at 25/20 you can expect the same and as you start going to 30 percent rates, you can expect either less and a 30 percent tax rate coupled with only a 15 percent credit is much less. The legacy fields would feel the sting of the marginal tax rate more; the new companies would feel the benefit from the incentives.

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SENATOR ELTON asked if there has been some controversy about investment in the UK North Sea being treated differently.

MR. DICKINSON replied that he would tiptoe around that one. He said that UK had made some dramatic changes recently to its methodology and just weeks ago essentially doubled the rate. There is debate about its effects.

CHERI NIENHUIS, Petroleum Economist, Department of Revenue (DOR), said that Roger Marks, Petroleum Economist, DOR, was also online.

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She recapped that she had answered only question 70 that asked for the annual oil severance tax amounts at various prices and for various scenarios. When she answered it she didn't have the numbers presented beside the chart. She had also run additional scenarios with 15/20, 25/20, 15/25, and 22.5/22.5. The packet contained all the runs.

CHAIR WAGONER said they have the information and can review it later.

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MS. NIENHUIS summarized information at \$40 a barrel for a frame of reference. She compared severance tax revenues that would be collected from 2007 - 2030 with the status quo and found for 15/25 that it was 21 percent greater; for 15/20 it was 36 percent greater; for 20/20 it was 100 percent greater; 22.5/22.5 was 126 percent greater; 25/25 was 151 percent greater; 25/20 was 165 percent greater; 30/20 was 230 percent greater; and 30/15 was 245 percent greater than the status quo.

SENATOR STEDMAN asked if she was more comfortable with the analysis between the first 10 years versus the last 10 years for professional estimating values.

MS. NIENHUIS replied that the reason 2030 is the time frame used is because that is the period in which it is believed the TAPS would either shut down or the North Slope will shut down.

She said the House Resources committee also wanted to know what the difference would be in annual severance tax with just an incremental 1 percent change in both the tax rate and the credit rate. That relevant chart was 70(i) and it compares the status quo with a 19/20, 20/19, 20/20, 20/21, and 21/20. She also ran another graph to illustrate the difference between a 1 percent tax rate increase or decrease and what a 1 percent credit rate increase or decrease would amount to. She found a 1 percent tax rate increase impacts the severance rate at a \$40 level quite significantly by a 5 to 1 ratio. So every 1 percent tax increase was equivalent to about a 5 percent credit decrease. "So, the tax rate is significantly more important based on this analysis than is the credit rate." She added that the ratio decreases closer to 2030 because of the projected decrease in production.

MR. DICKINSON said that the tax was very price sensitive because the credit is going to be \$1 of spending whereas the tax rate would be on a \$1 of profit. So if there were \$1 billion of spending a year, at \$20 oil with \$5 profit, if you double the price, the size of the credit will still be precisely the same.

MS. NIENHUIS said that Daniel Johnston also said that it would be a 5 to 1 ratio.

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SENATOR BEN STEVENS remarked that Mr. Johnston said the tax rate was inelastic and the elasticity was in the credit rate.

SENATOR STEDMAN responded that wasn't right; he said the tax rate is the sledge hammer and the credit is the tack hammer.

SENATOR BEN STEVENS agreed with that, but he thought he heard Mr. Johnston say that the tax rate was inelastic in relation to investment. He said he would check on it.

[4:19:59 PM](#)

MS. NIENHUIS continued saying that 70(j) was a summary table showing the effective tax rate for all scenarios. They were all price sensitive except the status quo. For this example, she explained, the way the average effective tax rate was calculated by taking the severance tax liability and dividing it by the gross well-head value less the royalty. This makes an apples to apples comparison with the status quo tax, which is a tax on gross revenues, less royalties.

[4:21:04 PM](#)

SENATOR BEN STEVENS found Mr. Johnston's statement that was contrary to what MR. DICKINSON said. On page 13 of his testimony on March 6, "I believe there is a strong evidence that producing activities are relatively unaffected by changes in the tax rates unless they are dramatic."

MR. DICKINSON replied that he said something different, but he had no opinion on the elasticity issue, which is what happens if you change one thing. He was focused on a the mathematical point that the amount of the credit, 1 percent change in the credit, would not have any relationship to price, whereas a 1 percent change in the tax rate would be dependent on price.

SENATOR BEN STEVENS said he understood now.

SENATOR STEDMAN recalled that the point Mr. Johnston was trying to make was that at a 20 or 25 percent tax rate, he didn't expect a significant change in what the majors produce on the North Slope.

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SENATOR ELTON said Econ One added, what they called, a historic line of 12 percent for the historic tax rate. He asked if she agreed with that number.

MS. NIENHUIS replied that she hadn't looked at it, but believed it to probably be accurate and she referenced page 43 that had the effective tax rates for the North Slope by field since FY'86.

MR. DICKINSON added that she was referencing page 43, question 30, Table (a). He walked them through an example. In 1988, Prudhoe Bay was 1.6 million of the 2 million barrels of production. In that year, the Prudhoe ELF was 12.66 percent. The only other field of any major size was Kuparuk at close to 200,000 barrels a day for 8.33 percent. If you average them all together, you get something in the 11 to 12 percent effective tax rate range. Before the aggregation decision and with 1 million barrels of production in 2004, Prudhoe Bay represented 400,000 of that although 50,000 of that would be gas (and, therefore, not part of the ELF). Alpine and North Star, combined only produce as much as Kuparuk that had an effective tax rate of 2 or 3 percent.

He advised if they are asking for the average tax rate on the North Slope, because of the ELF, you need to get the dates.

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SENATOR BEN STEVENS thanked him for that explanation. He said the reason it stayed so high was because it included the years of massive production. The chart that was presented yesterday went back to 1977 at the beginning of production, but they can only accurately use charts 10 years out. If you go 10 years forward, you should just go only 10 years back. Mr. Dickinson just said that the historical effective rate would be dramatically different depending on the number of years it went back. So, he asked to see the numbers for average historical rate in 10-year increments.

MR. DICKINSON responded that made sense and he could produce that.

SENATOR STEDMAN pointed out that Econ One's figures were based on a forward projection of ELF on status quo.

MR. DICKINSON agreed with that and so did Senator Ben Stevens.

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SENATOR BEN STEVENS said he was trying to clarify that included in the historical numbers were years when the state was at full capacity and production.

And I think if we ever got to that again, those would be the numbers we should use, but we're not talking about full capacity and full production; we're talking about maintaining existing production, which is one half or less than 40 percent of what it was at one point. So, I think that we have to use historical figures in context of where we're going to go into the future.

MR. DICKINSON observed that Econ One pointed out that these rates are not historically unprecedented.

What is historically unprecedented is the level of support that the Governor suggested we make to the industry in the future work going on on the North Slope. And I think if you look at when these rates were at this rate, it was Prudhoe Bay. Prudhoe Bay was the entire story with Kuparuk...

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MS. NIENHUIS moved on to question 71. Please show the corporate take chart on page 24 of Mr. Marks' presentation given the following tax/credit scenarios:

- a. 25/20
- b. 30/20
- c. 30/15
- d. 15/20
- e. 25/25
- f. 15/25
- g. 22.5/22.5

She said this chart was slightly different and has the status quo presented next to the PPT under each of the scenarios. Mr. Marks used the EIA forecast, which is an average of \$57 a barrel through 2040.

MR. MARKS corrected her saying, "I think it's 20/50."

MS. NIENHUIS said the charts were high volume and most of the costs remained the same. They showed primarily the difference in the state take (royalties, corporate income tax, severance tax and property tax (which stays fairly steady throughout)), but also the difference in the federal tax and the difference in the corporate take.

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MR. DICKINSON explained that the royalty and production tax stays the same, but the modeling shows increase in the severance tax and with the diminution in both federal take and corporate take.

MS. NIENHUIS said that was correct. For 25/20 with the cumulative revenues were \$580 billion (gross revenues), the PPT produces about 28 or 29 percent for the corporate take. There is a fairly large difference between the severance tax collections in the two scenarios between status quo and the PPT.

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The next slide considered 30/20 and has the corporate take significantly down to \$155 billion from the previous one of \$164 billion, a higher state take overall and a commensurate decrease in federal tax. This is due to the fact that severance taxes are deductible for federal tax purposes. Since the severance tax is higher in the PPT than under the status quo, that has an effect on the federal tax, as well.

The next chart showed the same information for the 30/15 scenario. It has slightly less in the way of corporate take and slightly more in the way of severance tax.

The next one, 15/20, was a little different. Even at that rate, the severance tax is significantly higher than the status quo and a fairly high corporate take, as well.

The next was 25/25 had significantly more severance tax, about four times more than the status quo.

The next one was 15/25 showed the corporate take to go up quite a bit, but the federal tax was not that much different than under the status quo. The severance tax was up over the status quo.

Lastly, 22.5/22.5 was close to the 20/20 in terms of total revenues to each entity. Close to 30 percent of gross revenues to the corporations and about \$55 billion to severance tax.

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72. Please show the price point where DOR estimates corporate profit margins hit:

- a. 15 percent
- b. 20 percent.

MS. NIENHUIS said the question was made in the context of the presentation of these charts and she understood the question to be show where on the chart the corporate take is 15 and 20 percent. That would not necessarily represent a profit; that would be the 15 percent of the gross revenues. So, actually the profit would be minus the Opex and the Capex costs, transportation and et cetera. It's true that \$20 a barrel is a problem for the state no matter what tax system you go with. In Chart 72(a)(1) she showed that \$20.15 per barrel was the price at which the corporate take is 15 percent; it shows the state take to be quite low at that amount. For clarification she said the total cumulative revenues of this chart is \$100 billion including costs.

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At a high volume scenario the same corporate take has some additional costs associated with it because the high volume scenario has the heavy oil that would come on line as well as the gasline. The price at which the corporate take is 15 percent under this scenario would be \$27 per barrel ANS. It showed a cumulative revenue of \$283 billion.

The next question was price does the corporate take go to 20 percent under the low volume scenario without a gasline and she showed that it would be \$24.50 a barrel ANS. The state takes less revenue at this amount than under the status quo.

She used another high volume scenario to answer what price would the ANS per barrel have to be for the corporate take to be 20 percent. She got an average of \$32 per barrel ANS.

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90. Please show the cumulative production tax from 2007–2030 under the PPT given the following tax/credit scenarios:

- a. 25/20
- b. 30/20
- c. 30/15
- d. 15/20
- e. 25/25
- f. 15/25
- g. 22.5/22.5
- h. A summary chart showing all above scenarios

i. A summary table showing all above scenarios

Her first slide started with 25/20 and a low volume scenario; the crossover point was \$24. The crossover point for 20/20 was \$26.50 per barrel.

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The low volume scenario for 30/20 had a crossover point at \$22 a barrel ANS. It rises fairly steeply past \$25 a barrel.

The low volume scenario for 30/25 had a crossover point of \$21 a barrel. For 15/20, it was at \$34 a barrel. She said that several of the scenarios don't generate much revenue at prices below \$25 - \$35. The scenario for 25/25 had a crossover at \$25. At 15/25, the crossover point was at \$36 per barrel. The 20/20 stays high above the 15/25. The crossover on 22.5/22.5 was \$26 a barrel and it behave very like the 20/20.

The last slide addressed question 90(i), which shows what the cumulative tax revenues would be at the different prices in the graphs she just presented.

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ROGER MARKS, Petroleum Economist, DOR, commented on the status quo \$20-dollar column in question 90(i) indicates the state would get only \$123 million per year in revenues with which to cover its budget and at that point it would have bigger problems then having chosen the wrong combination of taxes and credits. He advised that worrying about how much money you lose at the low end under \$20 is probably not a real fruitful exercise and it was pathetic. That doesn't mean prices couldn't be \$20; but it does underscore the need for broad-based taxes. At \$20, the state would need more than the oil industry to keep it afloat and the CBR (Constitutional Budget Reserve) would be just a pleasant memory especially if the prices were low for as long as a couple of years.

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MR. DICKINSON jumped back to page 34, questions 73, 74, 76. They all related to the Cook Inlet analysis. The first question analyzes it under the proposal. The second question is how much does the \$73 million allowance play in that and the third question is what happens to a new player. His answer was:

If we look under the current analysis and the assumption - and this is the big one in the Cook Inlet - What happens to gas prices if you assume that they move towards world prices, then, in fact, you will see the folks that have gas paying a PPT. If you don't move towards world prices and you stay in the \$2 - \$3 range, then you will find the folks that have the gas are not paying the PPT. So, fundamentally, the question here is not so much a PPT question as right now there's one contract between Enstar and Unocal that uses world pricing, if you will, or US pricing. Most other contracts are at much lower rates. Cook Inlet has been isolated for markets. Essentially you have ConocoPhillips selling on a world market, but aside from that it's been internal use and the prices reflect that.

MR. DICKINSON contended that if they go to world prices in around the \$7 range, the ELF would not be appropriate at that point and the PPT would have to be there.

Moving on the second question: What happens when the \$73 million allowance comes in. He analyzed this specifically going backwards, which brings with it the assumption of low prices. Without the allowance there would be a small increase; with the allowance they would see about the same or a diminishing of the take. His finally conclusion was with just the \$73 million allowance and isolating Cook Inlet, at low prices they would see a significant production tax being paid under the PPT.

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76. Model a newcomer to the Cook Inlet that explores for, finds, develops and sells gas. What will their taxes look like under the status quo and the PPT?

It is impossible to answer this question with any accuracy because of the numerous assumptions one would have to make. Generally, a newcomer to Cook Inlet would spend at least a couple of years exploring for gas, and during this time, would presumably not produce any gas and in fact may not realize any income from these operations. So for the years of exploring, the newcomer would not pay any tax under either the status quo or the PPT system. Under the PPT system, the newcomer would have earned capital credits in the first couple of years that they could either hold or sell, as well as any loss carry-forwards they may have

accrued. The question is if they are selling at world market prices, they will use those capital credits up very quickly. If they are selling in the \$3 range, those credits will give them a shield for a number of years. After the credits have been used and monetized, they still have the \$73 million. So if a player was generating less than that, as they do in the Cook Inlet, they are covered and not paying additional tax.

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78. Could we look at (1) a standing offer to purchase tax credits for 10 percent of their face value - with the implication that the department could treat that as a receipts funded program so that the legislature would not have to authorize the purchase amount and (2) "Alaska bucks" - i.e. allow credit certificates to be used in lease sales or other lease acquisition activities as cash.

He answered that basically rather than having a buyback, the state would make the credit refundable. The state could set a limit on the refund. The total credits are going to represent between 25 - 30 percent of the revenues, so if some of those are purchased rather than taken, the net effect on the state is the same. The notion here was why let a market player intervene and get 10 or 15 cents on the dollar.

If value is added to them by allowing them to be reinvested or used for a lease sale or make them 110 percent, that is a policy call by the legislature. How equal it wants the people who are bidding to be is another issue. Perhaps they would want to incent someone who has worked here before versus someone who is coming up for the first time. He advised to steer clear of having any incentives built in to the process of acquiring the leases and they have focused on getting them on the process of developing those.

[4:56:58 PM](#)

79. Could we draft up alternative standards for the anti-hiving provision so the legislature can choose.

ROBERT MINTZ, Assistant Attorney General, Department of Law, answered if multiple entities take advantage of the allowance, that means that one entity would have to be producing and it would have to get some kind of benefit in return for that. That was the

trigger for the approach that the department will disallow an allowance deduction if it finds that a benefit attributable to a producer's allowance is shared with or enjoyed by another producer. This concept might be more effective if it were adopted as a supplement to, rather than a substitute for, the current language in proposed AS 43.55.160((j)).

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MR. DICKINSON said question 81 was a request to share the model and he declined to do that, but fundamentally, his experience is that this model is not user-friendly and only a handful of folks know how to use it. He vowed to help people get answers to their questions.

[5:00:34 PM](#)

Skipping ahead, he went to a sequence of questions on what is the meaning of progressive tax. What is proportional and what is marginal?

Black Law Dictionary said that a progressive tax is a tax structured so that the effective tax rate increases more than proportionally as the tax base increases. Clearly how the tax base is measured has caused some confusion. The tax base could be the net or the gross. The confusion has arisen in trying to restate the PPT, which is a tax on the net, in terms of gross to make it comparable to the ELF. On one of them, estimates for capital costs would have to be made, and the department has actuals on the gross going backwards.

SENATOR STEDMAN asked what his conclusion was.

MR. DICKINSON replied, "A progressive tax is one in which wherever you measure your base, and as your base changes, does the rate change more quickly than the base - not nearly in proportion to it."

[5:02:36 PM](#)

SENATOR STEDMAN asked if they were looking at percentage changes of the total pie as the dollar value went up.

MR. DICKINSON replied that he believed it could be measured as a change in the percentage or as a change in the total dollars. "The main thing is you need to be consistent about which one you

are measuring as the total of one goes up, the total of the other goes up more quickly."

SENATOR STEDMAN said he didn't necessarily agree with that.

CHAIR WAGONER said he would let the two of them get together later on that issue.

MR. DICKINSON responded that he has seen folks do it both ways.

[5:04:03 PM](#)

93. What is the meaning of the term "marginal tax rate," which is the rate of tax applied to the last dollar of the tax base?

He explained that according to WG&L Tax Dictionary (2004), a marginal tax rate is, "The rate of tax applied to the last dollar of the tax base." Therefore, if a tax is based on net income, a marginal tax rate is measured based on the last dollar of net income. This is most often found in income tax law such as AS 43.20.011 where the top marginal rate is 9.4 percent and this tax rate is applied to amounts of Alaska corporate taxable income over \$90,000.

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94. What is the meaning of the term "effective tax rate?"

In general, whenever there are several factors at play this measure cuts through all their effects and typically divides the tax paid by some measure. For example, an income tax, the effective tax rate is normally expressed as the actual income tax paid divided by taxable income, expressed as a percentage.

For example:

Gross income: \$100
Less deductions: (\$90)
Net income: \$ 10
Tax at 20 percent: \$ 2
Less credits: (1)
Tax due: \$1

He explained that in this example, the effective tax rate is 10 percent, which compares the \$1 tax due with the taxable income of \$10. In Question 30, earlier, the effective production tax rate was the percentage

of gross revenue without taking exploration credits into account.

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95. Please differentiate the definition of "exploration," "development," and "production."

He noted that, in general, the bill provides the same tax treatment to oil and gas exploration, development, and production. In other words, it generally makes no difference whether an expenditure is for exploration, or for development, or for production, and it was therefore not felt necessary to define the terms in the bill. The terms exploration, development, and production are addressed in FASB (Financial Accounting Standards Board) Current Text Standards say:

Exploration involves identifying areas that may warrant examination and examining specific areas that are considered to have prospects of containing oil and gas reserves. Exploration costs include drilling exploratory wells and exploratory-type stratigraphy test wells. The principal types of exploration costs include costs are topographical, geological, and geophysical.

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SENATOR ELTON asked he would have thought lease costs would be an exploration cost.

MR. DICKINSON responded that he didn't believe lease costs were considered exploration costs. Lease acquisition costs are usually separate and distinct from exploration costs.

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ROBYNN WILSON, Director, Tax Division, DOR, said that Mr. Dickinson was correct.

MR. DICKINSON added that development costs are what is necessary to get the reserves, delineate them, figure out what is there, provide the facilities for getting them up, treating extracting, gathering, storing. The kinds of costs for typical infrastructure costs would be road building, power lines, drilling, platforms, the casing, the tubing, the equipments. Once that development has occurred and the investment has been made, the last category is production and that involves the actual lifting to the surface, gathering it, storing it, and

getting to market. Production costs, operating costs, maintenance costs, replacement like labor to operate the wells, repairs, maintenance, material, supplies and the fuel consumed to operate the wells.

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SENATOR ELTON said he mentioned something that was not included in the written answer - getting it to market is not listed as a production cost.

MR. DICKINSON replied that he meant getting it ready for market, typically an E&P that would turn it over to a midstream company that would have transportation. Senator Elton was correct, a pipeline would not be considered production.

There being no further questions to come before the committee, CHAIR WAGONER adjourned the meeting at [5:10:10 PM](#).