ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE
January 31, 2018
3:30 p.m.

MEMBERS PRESENT

Senator Cathy Giessel, Chair
Senator Natasha von Imhof
Senator Bert Stedman
Senator Kevin Meyer
Senator Bill Wielechowski
Senator Click Bishop

MEMBERS ABSENT

Senator John Coghill, Vice Chair

OTHER LEGISLATORS PRESENT

Senator Berta Gardner

COMMITTEE CALENDAR

OIL AND GAS 102 TO THE ALASKA LEGISLATURE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

RICH RUGGIERO
In3nergy
Juneau, Alaska
POSITION STATEMENT: Presented "Oil and Gas 102."

CHRISTINA RUGGIERO
In3nergy
Juneau, Alaska
POSITION STATEMENT: Helped present "Oil and Gas 102."

ACTION NARRATIVE

3:30:15 PM
CHAIR CATHY GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Stedman, Wielechowski, Bishop, Von Imhof, Meyer, and Chair Giessel. Senator Coghill was excused.

Oil and Gas 102 to the Alaska Legislature

3:30:49 PM
CHAIR GIESSEL announced the only order of business today, the presentation: Oil and Gas 102 to the Alaska Legislature. On October 18, 2017, she and co-chair of the House Resources Committee coordinated with Senator Stedman to hold an (all-day) introductory course entitled "Oil and Gas 101." It is on line for the public to see and it lays the foundation for today's presentation, which is called "Oil and Gas 102."

3:32:18 PM
RICH RUGGIERO, In3nergy, introduced himself and said he would present "Oil and Gas 102."

CHRISTINA RUGGIERO, In3nergy, introduced herself and said she would help present "Oil and Gas 102."

SENATOR STEDMAN said they are trying to lay down a base level of knowledge about oil and gas for elected officials and their staff, as well as other interests in the public.

3:33:16 PM
MR. RUGGIERO said when they were asked to put "Oil and Gas 102" together, he went back and looked at "Oil and Gas 101" and then got together with members of the Legislative Budget and Audit (LB&A) staff and all the other consultants and got an appreciation for the level of understanding of certain concepts within the legislature. He formulated what they thought would be helpful to them as they think through petroleum fiscal policy. The presentation will repeat some of the concepts from the 101 course and cover some future unexpected scenarios.

CHAIR GIESSEL commented, so he understands who his audience is, that with the exception of Senator Von Imhof, every person sitting here has been in the legislature for at least eight years.

3:35:16 PM

MS. RUGGIERO started on slide 13 saying a mentor once told Mr. Ruggiero: "Torture numbers and they will tell you whatever story you want to hear." She advised that lawmakers should always be thinking and asking: "What is it that they are not telling me? What data or information do they hope I will not find?" She said they are experts and can explain the past, but they don't predict the future nor can anyone else. So, how does one plan for a future that is uncertain and can't be predicted?

3:37:41 PM
MS. RUGGIERO advised not taking a number, conclusion, or assumption at face value. She encouraged asking questions, digging deeper, and understanding where they came from. For instance, at what price per barrel does a net tax cross over to a gross tax? What one should ask is where does that $72/barrel come from. The answer is that it comes from a dataset of specific costs from a snapshot in time when that data existed. But, the difference is that the same circumstance might not be in place today nor will it be in the future. They know that $72/barrel is going to move. So, the question is: is the fiscal system in Alaska prepared for that change whether the price of oil goes to $90/barrel or to $60/barrel?

3:38:57 PM
MR. RUGGIERO added that the Tax Division recently testified that the current crossover is in the mid-$60/barrel range. In reality, that is based off average data. All the fields in Alaska that are impacted by the net versus gross decision may range from $50-$80-plus/barrel, depending on the field and its cost structure. That crossover point is the oil price including costs and that has changed every day, historically.

3:39:54 PM
MS. RUGGIERO said there is no a global standard or an ideal structure, but there are parameters and pillars for success. Each country has different goals, different drivers, and different needs. Their populations are different; their resource is different. A successful system is durable but changes. It marries the goals, the drivers and the needs of the government. A country that is short on reserves is one that has a low reserve base - they know what resource they have, but likely the oil is being produced faster than new oil is being found. That could be a time they want to incentivize exploring and drilling through the fiscal system. If a country is long on reserves, maybe it has spent more investment dollars in finding oil than in developing it. If that's the case, then the fiscal system

would want to incentivize the development and production behavior.

3:41:52 PM
She repeated that change is the constant in this industry and a good fiscal design anticipates that. Good petroleum fiscal design is one that learns from, but doesn't replicate or repeat the past, and uses "self-correcting mechanisms" to succeed in the inevitable changing future.

MR. RUGGIERO said an example of setting policy on a specific number that didn't really work was when the gross tax came into being. The tax was zero up to $15/barrel and 4 percent above $25/barrel. In summary, the total all-in cost was about $15/barrel back then. So, the zero was set at a point where whatever revenue the oil companies made was eaten up by their costs (their breakeven point). The idea was to not tax them to a point where they had to dig into their pocket to pay for it. The $25/barrel represented a significant value above $15. So, there was value and thus the 4 percent tax. Fast forward to 2018 and the breakeven cost for the legacy fields is $37/barrel. Now the zero percent tax at $15 set many years ago, because it happened to be coincident with the breakeven point, today would tax 4 percent at prices below their breakeven point all the way down to $15/barrel. This is where the need to continually change or update a system comes from.

3:46:46 PM
MS. RUGGIERO continued that one of the concepts they want to expand upon is competitiveness and that Alaska is competing on the global stage. But what does "competitiveness" really mean? We are competing for finite resources, a finite amount of investment capital, and a finite amount of industry personnel with expertise. Add to that, rigs and technology availability. So, Alaska is competing for allocation of the resources in a boardroom when a company has a limited amount of money. Alaska has always faced that, but this year, the LNG project adds another layer to that definition in that it is now also competing for market.

CHAIR GIESSEL noting that Mr. Ruggiero had been in the boardrooms when investment decisions were made, asked what was discussed in making those decisions to move capital to one location versus another.

MR. RUGGIERO replied that they would get into that a little later in the slides, but the short answer is that every group

that works an area - for instance Company X in Alaska - will put together a list of their projects and will champion them within their global environment. The people in the boardroom look at the longevity, the overall economics, and risk. After a great discussion, a line will get drawn and the project that is above the line is picked. Then the person who is championing the project that came in just below the line tries to figure out what it needs to get it above the line and secure that capital. If some of that is a government issue, he would go back and start working with the government in the country he was assigned to see if he could get his projects above the line.

3:50:10 PM
MS. RUGGIERO said global change is constant and Alaska is no different. Its discussions have changed from a year ago. Alaska is asking if the fiscal system is prepared for these changes. Is it ready for the opening of ANWR or the federal tax change? Will the AKLNG project affect our fiscal system. Is that successful for the state or not?

3:51:15 PM
She said there is a lot of discussion about the headline tax rate globally (slide 25). It's the report card that people talk about, but much like an iceberg the headline tax rate is what sticks out of the top of the water and the mass of a fiscal structure is what lies beneath the water. The components that under water are the ones discussed in boardrooms, for instance: lease costs/bonuses, cost recovery, ring fencing, risk offset, etc. She said slide 26 focused on the timing of cost recovery and how those affect the economics of a project both from a state perspective and a producer perspective.

MR. RUGGIERO said slide 27 graphed different countries' fiscal regimes using the same project at one point in time. The red color coding is the amount of the tax that was collected by the government before the producers recovered their costs (the breakeven point). The blue color coding is called post pay and is after they got their costs back, but they haven't achieved their internal rate of return (cost of capital) for doing that project. That target is usually based on what return their investments can achieve. The green color coding is the profit component, and this is after the producer has received all its costs back and met its corporate investment hurdle rate and is what the government taxes. Another way to think about the color coding is that it is proportional to the amount of risk contained in the investment.

He explained that generally alongside running basic economics, a company will also do a risk analysis. Over-simplistically speaking, a country that has a lot of red is a high-risk country; that is because the government is taking a lot of the revenue well before costs are recovered. Blue is a little bit less and green is the least risky.

SENATOR BISHOP said as a layman one would think that an oil company boardroom would weigh a decision in more of the countries with the green bar where costs and rents are recovered before government take.

MR. RUGGIERO said, "Absolutely." In this example he would recommend the two in the center with a majority of green and avoiding the ones with a lot of red.

SENATOR BISHOP asked if these numbers are hypothetical or did he pull them off actual countries leaving the names off.

MR. RUGGIERO replied that these are actual fiscal systems from actual countries in his database. All the countries are very different; so if one compares fiscal systems item by item the answer will not be anywhere near accurate. The totality of the system needs to be looked at. Probably dozens of items make minor differences on their own, but a package of things make major differences and he would focus on those differences today.

3:57:22 PM
SENATOR VON IMHOF asked where Alaska might fall in that graph (slide 27).

MR. RUGGIERO replied that he chose to not include Alaska, because this presentation was for training purposes and to explain the concepts first. Alaska was not one of the bars on the graph.

He said in all his years of fiscal modeling he has found that time has more of an impact than the tax rate, and that goes back to the fact that most capital is spent in countries that have a higher tax rate than Alaska. Slide 28 takes the same project with the same revenues, with the same costs, with the same split between the government and the producer. The only difference is that he artificially changed when the monies are received by the government and when they are received by the producer.

The upper left-hand quadrant of slide 28 has a distribution of revenues such that it creates a 27 percent rate of return

project - usually well above most corporate hurdle rates. He varied the timing of when the same dollars are distributed. So, referencing slide 27, he said the project in the bottom right has more tax taken during the red period and the one in the upper left has more tax taken in the green period. The one on the lower right has a 6 percent rate of return and a negative NPV (meaning that project would actually decrease the corporate value). Most companies would not do that project.

The concept of time value of money is not well understood, Mr. Ruggiero said, but it needs to be understood. He can take all the same numbers and go from something that absolutely almost every company would likely do (subject to the risk analysis) to a project that none of them would do. He couldn't emphasize enough how when things happen is a very important key to the investment decision-making that is likely being done by Alaska producers.

SENATOR BISHOP asked how much of that methodology would hold true if one believes in peak demand coming X number of years down the road.

MR. RUGGIERO replied if you believe that peak demand - meaning the world will be in supply quite a way out, he would set the system such that it would incentivize the activity they want to see. If you think there won't be a market for gas in 20 years, then you should be incentivizing everything onstream now. He stated that one should do five or ten things regardless of whether the future is supply long or supply short. Incentivize those things and then remain a bit nimble to adjust to circumstances as they unfold.

MR. RUGGIERO said the timing of "first significant dollars spent" to first dollars into the revenue coffers is important. In the Lower 48, it takes on average 60 days for most wells to get oil into a pipeline from first drill. For Alaska, it's five years-plus.

He really wanted to emphasize that for institutional investors, private equity, and others, it's not just about the time. For example, he compared two $500 million projects: one is drilling 50 shale wells in West Texas and the other is putting in a small field in Alaska. In his shale example, each well costs about $100 million and he can drill one every month. By the time he drills the 10th well they have started generating enough cash flow, in excess of operating expenses that he can funds the remaining $400 million investment program from cash flow. The

investor is looking at $100 million out of pocket, maybe $110 million if a few things don't go quite right.

In Alaska and other places that have long lead times - Gulf of Mexico, North Sea, etc. - the whole $500 million has to be spent before first oil and maybe $600 million if things do go quite right. The risk to the investor in the first project is $100 million and the in the other it is $500 million. Those two projects will be looked at very differently by the investment community. He can't say for sure about folks in the corporate oil company boardrooms, but he can say that working a lot in the last three years with private equity, that is exactly how they look at it. In a different twist, they always ask: "What's my maximum cash out? How many turns do I get if I reinvest the cash flow from the early wells and the operations that come into it?" The timing means they are able to recover costs very quickly, well before they are done with the last well drilled.

4:06:05 PM
CHAIR GIESSEL asked if timelines take precedent over tax policy in the boardroom in terms of weighing a decision for or against a project.

MR. RUGGIERO replied that they don't totally override other considerations, but the timing to get money back and the time it takes to do certain things really impacts the economics of a project. It's the economics and the risk analysis that goes alongside it that will generate the company's decisions.

However, Mr. Ruggiero said his experience in working in places like the North Sea and bringing major projects forward that have long lead times and high capex up front, is that those fields tend to last a whole lot longer. How long has Prudhoe Bay been producing, for instance, as compared to a shale well? North Dakota has had 10,000-15,000 shale wells drilled to get into the number-two producing position, and for the most part in somewhere between one and a half and three years, 90 percent of the ultimate production will have been produced, plus companies have to keep drilling wells to keep production up.

4:08:10 PM
MR. RUGGIERO said last year he testified to something called "the wasted NOL," the perceived inability for a producer to recover its costs. He heard comments like allowing recovery was a subsidy, but he said now what he said back then, "It is really the norm around the globe that you get to recover your costs and when you recover those costs, they aren't taxed." If a regime

does not allow those costs to be recovered, and in a timely fashion, that would be more indicative of being non-competitive than a high tax rate.

Also, in cost recovery something is not always well understood. Regimes differ on what they allow and don't allow as a deductible cost. Standard deductions on overhead and financing costs, but if the exploration costs and abandonment (traditional oil field operations) protocols aren't added in, the producer's real costs and return can't be accounted for deciding on a fiscal system tax rate. He was trying to point out that as lawmakers look at doing anything with the fiscal system that the tax rate is a big piece, but equally big, if not bigger in a lot of the fiscal systems, is the timing on when and how much of the costs get recovered.

4:11:11 PM
MR. RUGGIERO said slides 31 and 32 were example of countries that have more than one type of tax regime in play at a time. Although some have only one. The chart on slide 32 shows some of the hidden things that don't become real evident when looking at the totality of a fiscal system, like the limits that can be placed on how fast costs can be recovered.

He explained that Production Sharing Contracts (PSC) have cost oil and profit oil. Angola puts a cap on how much each year one can call cost oil. The remainder of that is profit oil under the definition of the contract and gets taxed even while other costs need to be recovered. Other PSCs allow all the revenue to go to costs until they are recovered and then the profit oil is created. his example regimes design their systems in a lot of different ways to impact the costs that are recovered and the timing of their recovery. He advised them in the future to concentrate not only on the tax rate (royalty, severance, gross, and net) but on costs and timing aspects when someone comes in with a comparison.

MS. RUGGIERO clarified that these are just examples of oil producing companies and they are in no way advocating for any one structure.

4:13:50 PM
She cautioned that the more levers the system has, the more it costs to administer and in a complex system the risk of dispute goes higher as the complexity increases (slide 33). Then there are unintended consequences. By creating, revising, or eliminating one aspect of a complicated tax system, there is

very likely a risk that other areas of the tax system will be affected to the detriment of one or more parties. These unintended consequences can undermine the intent of original efforts and are often difficult to see or anticipate. Before making changes, a thorough analysis should be performed to make sure the level and degree of interdependency of certain taxation terms are understood and addressed.

4:15:31 PM
SENATOR STEDMAN asked how complex Alaska's fiscal system is compared to other basins he has seen and worked on.

MR. RUGGIERO answered that it's one of the more complex systems that he has dealt with.

4:20:13 PM
MS. RUGGIERO said another one of the presentation's key themes is about growing the legislature's knowledge base. Much good information is available to them from a lot of public sources like government agencies: the Energy Information Administration (EIA), the International Energy Agency (IEA), and the Extractive Industries Transparency Initiative (EITI), and that data can all be exported into an excel spreadsheet where it can be manipulated any way one wants. In addition, oil companies like BP do annual statistical reviews and oil field services companies like Schlumberger do oil field glossaries. She also likes looking at annual reports and analyst presentations in the United State Securities and Exchange Commission 10-K forms from the oil companies. The analyst presentations can reveal what the real intentions of a company are. Banks also put together a number of useful presentations. Because so much changes so quickly, she personally likes to go to these sources at least monthly to see how the numbers have shifted. Their hope is that Alaska agencies will work together to create a depository of documents and websites for legislators and the public to go to to be as informed as possible.

MS. RUGGEIRO showed examples from the EIA as part of their long-term outlook report (slide 37). She pointed out that the chart on the left shows that the U.S. will be an exporter of energy in 2024/25. This is significant when they discuss the LNG project. She skipped to slide 40 that displayed the crude oil price curve from the 1860s but in 2016 dollars and noted the preponderance of volatility and said that Alaska should expect volatility in the future. The only time oil prices were stable was when they were under tight government controls.

4:22:02 PM
MR. RUGGIERO said the goal of sovereigns is the 'optimal' development of its petroleum resources for the benefit of their people (slide 42). "Optimal" is not the same for all governments and Alaska needs to ensure its fiscal structure supports an agreed set of goals. The goal of oil companies is to make a profit and meet investor expectations. These vary somewhat from company to company. When people come to Alaska, they have different goals. If they are private equity-backed they have very different expectations as to what they will do and how they will do it than a company that is guided more by shareholder returns. Thus, the attractiveness of Alaska is going to be different. He advised to really understand the type of player they are trying to attract - and they may choose to exclude some - and the challenge is to find where the fiscal system and the expectation of the investor community and the companies overlap. He emphasized that the private equity-backed companies' expectations are very different.

CHAIR GIESSEL asked if he would say that the private equity investment organizations want faster return on their investment. How would he summarize the difference?

MR. RUGGIERO replied that they are always driven to get their money back as fast as possible. Time is really key for them, and they always look for an exit ramp. They really don't care who comes in, as long as the price is right, they'll get out and move on. He has become very familiar with this approach in the last few years.

4:25:34 PM
MR. RUGGIERO said the countries that seem to do really well and have more "stable systems" are those that are built to achieve a set of transparent goals, so everyone knows what the goals are and will help you get there. Without transparent goals, the oil companies and the investment community don't know what project to choose. He said suggested Alaska petroleum tax design goals were on slide 43.

4:26:51 PM
Slide 44 illustrated the tension in the fiscal design between producers trying to get their costs back plus a bit of profit and the government trying to maximize the sovereign's return. Somewhere therein lies the right split for a given situation.

4:27:25 PM

MR. RUGGIERO explained that the orange part on slide 46 represents a few of the many tools that governments have for extracting whatever they believe is their share of petroleum production in their jurisdiction, but it all comes down to net and gross take. It hasn't changed in the decades he has been doing this. A gross tax is regressive; it gets worse the lower the profit gets. It becomes very penal as prices come down and the costs stay steady.

He explained that right now Alaska's system could have a price/cost scenario where the company would have to reach into their pocket to pay production tax. He used the following analogy: in a 100-meter dash the amount of gross tax would be something like 10 meters out and the question is what the size of the hurdle is that each runner has to go over before he can finish the remaining 90 meters of the race on a flat surface? That is what a regressive tax is. Royalty is the hurdle that has to be crossed before anything else happens because it gets paid first. The beauty of that system is that it is really simple and transparent and can be audited easily. But, it's not responsive to the economics of a project.

A net tax system is either neutral or progressive, meaning as profits go up then the tax follows along the profit line. The issue with that is figuring out what net profits to tax from all the moving pieces (cost, timing, what deductions are allowed nor not). A net tax tends to even the playing field between a little higher-cost project versus a much lower-cost project, because it taxes the lower cost project a bit more and the higher cost less profitable project less, so it evens the playing field. A gross tax doesn't discriminate; it just hits everyone the same.

Those are the choices. A lot of systems are a hybrid. That way they don't make the upfront hurdle rate too high and just in case things get really, really, good they can catch it on the back end.

CHAIR GIESSEL recognized Senator Gardner present in the audience.

MR. RUGGIERO summarized their discussion saying that:
1. Change is inevitable
2. You're not going to be able to predict anything off that past other than what is a good practice and a bad practice. Going forward, more and more regimes are going toward self-correcting mechanisms with a minimal amount of intervention. It works across a much wider range of circumstances occurring.

4:32:05 PM
Someone always has the idea: if we fix this one item, the state could make more money. However, in the overall scheme of things those are small items that don't add up to savings because of the resulting increased administrative costs and legal disputes, as well as the time value loss of money to the state. He concluded that the simpler systems usually prove to be more viable and durable than theoretically ideal but complex systems. Simpler systems are more stable and viable over time because of the associated administration of them, fewer disputes, and the time value of money.

4:32:38 PM
In general, they are not making recommendations, Mr. Ruggiero said, but they want to make one strong one stemming from his 12 years of working with the State of Alaska. He asked himself what he would do if he was sitting in one of their chairs as a freshman in either body. The first thing he would assert is that the state is dependent on oil and gas and he would want a "state of the petroleum union" speech in the first week of every legislative session. People who don't have to worry about taxpayer confidentiality and have a wealth of information should do the presenting on what is producing, what permits are out there, and a whole list of other issues, so that everyone knows as much as possible about the petroleum industry at the start of each session. Some of the most transparent regimes that he is aware of don't lose competitiveness or their edge in doing this. It's just the opposite: the more transparent they are the more investment they have. A well-informed legislature working with a well-informed producing community is going to come up with a better solution overall.

4:35:08 PM
MR. RUGGIERO said the data exists in the system now, but it isn't user friendly. He included a slide with North Dakota to show how one can go to their ministry and find out everything about their operation. The data is available on line 15 days after the reporting month. North Dakota has one of the most transparent sites you can go to. He can track back the ownership of a lease, how many times it got sold, if that sale price was public, what wells were drilled and when; and the whole gamut. Even though Norway has a higher tax rate than Alaska, it's very transparent with its information and it gets more investment than Alaska. He also showed a slide of North Dakota that is becoming much more dependent on its oil and gas.

SENATOR BISHOP commented that, "It's all offshore."

MR. RUGGIERO said that was right, which means it's just like the North Slope that has a very long lead time, is environmentally sensitive and Arctic conditions.

CHAIR GIESSEL said the Division of Oil and Gas (DOG) website has monthly reports on production and royalty and where it goes. She hoped legislators used it to see how much the state is gaining in royalty.

MR. RUGGIERO added that the website also has some data, but it is hard-wired and hard to use, and encouraged them to make it more user friendly.

4:38:10 PM
MR. RUGGIERO said their summary is first, that a lot more probing questions need to be asked. So, when people compare Alaska to jurisdictions X,Y,Z, legislators need to ask them on what basis are they making that observation and drill down to understand more than the headline tax rate.

Second, there isn't an ideal structure for sharing the benefits of oil and gas development; it's a matter of understanding what you are trying to achieve, what the geology is below the surface and understanding the challenges upon the surface, and defining goals, and putting that all together in what is best for Alaska.

Third, never have someone say "Wow, when we did bill X,Y,Z, we didn't think about this." Moving forward, make sure that the scenarios you ask your consultants and others to consider are broad and wide-ranging. Any conclusion about competitiveness can only be drawn on systems as a whole.

4:39:58 PM
Slides 56 & 57 were generated by the following phone conversation he had: Texas has a 20 percent royalty compared to Alaska's one-eighth or one-sixth, and under certain circumstances Texas might have a 7 percent severance tax compared to Alaska's 4 percent gross tax. So, the question is: why is all the money going to Texas and not coming to Alaska, and can Alaska raise its royalty and tax rates to those levels and still have companies come here?

MR. RUGGIERO said to answer that, he sat down and went through the order of operations in figuring tax, a "single-barrel analysis," for the Alaska North Slope (AKNS), West Texas (WT)

New Alaska North Slope (New AKNS) meaning the resource is not right in Prudhoe Bay or Kuparuk (so, needing new infrastructure). He used the same market price of $60/barrel. West Texas before paying the corporate income tax makes about three times what the legacy fields do and about 30 times more than a new North Slope field does, throwing in the additional infrastructure costs and slightly higher operating costs.

If one just compares royalty rates in isolation that would lead one to think that they could be taxed more, but then looking at the totality and the bottom line before income tax, one knows why ExxonMobil just announced a big investment in West Texas and Eastern New Mexico. They can invest the same dollars although they don't last as long, but they get quick return and a whole lot more out of every barrel, dollar-wise. One can put North Dakota or Oklahoma in there and the numbers will change a little, but the relative ranking will hold no matter where one looks in the Lower 48.

4:44:40 PM
SENATOR BISHOP asked if shale versus conventional oil makes a difference in West Texas.

MR. RUGGIERO answered not really and explained that one of the projects he is consulting in Texas has water flood, vertical conventional, and horizontal. Whereas the cost of the water flood structure varies the cost a little bit, on average the numbers don't change drastically. As they do more drilling the cost of a well is coming down quite quickly, so what used to be a $12-million well is now a $7-million well, but the relative positioning of his number won't change much whether it's vertical, conventional, or water flood.

4:45:42 PM
He summarized for legislators that when someone offers up a regime as a comparable to Alaska, make sure to understand similarities and differences and how much impact they would have on the economics and risk of a project.

4:46:30 PM
MS. RUGGIERO advised not getting caught up in the average of 12.5 percent royalty, because Alaska has different royalties in the different geographic and ownership regions including the fact that the state split is also different in different areas.

4:50:34 PM

CHAIR GIESSEL found no further business to come before the committee and adjourned the Senate Resources Standing Committee meeting at 4:50 p.m.