ALASKA STATE LEGISLATURE
JOINT MEETING
SENATE RESOURCES STANDING COMMITTEE
HOUSE RESOURCES STANDING COMMITTEE
July 11, 2018
9:00 a.m.

MEMBERS PRESENT

SENATE RESOURCES

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

HOUSE RESOURCES

Representative Andy Josephson, Co-Chair
Representative Geran Tarr, Co-Chair
Representative Harriet Drummond
Representative Justin Parish, online
Representative Chris Birch
Representative DeLena Johnson
Representative George Rauscher
Representative David Talerico
Representative Mike Chenault

MEMBERS ABSENT

SENATE RESOURCES

Senator John Coghill, Vice Chair

HOUSE RESOURCES

Representative John Lincoln, Vice-Chair
Representative Chris Tuck

OTHER LEGISLATORS PRESENT

Senator Peter Micciche

Senator Shelley Hughes

Representative Bryce Edgmon, online
Representative Jason Grenn
Representative Jennifer Johnston
Representative Charisse Millet, online
Representative Dan Ortiz, online
Representative David Guttenberg, online
Representative Paul Seaton, online

COMMITTEE CALENDAR

OVERVIEW: AKLNG QUARTERLY UPDATE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

DAVE CRUZ, Chair
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

FRANK RICHARDS, Vice President
Project Management
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

LEIZA WILCOX, Vice President
Economics and Communication
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

MIKE BARNHILL, Deputy Commissioner
Department of Revenue (DOR)
Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

MARIA TSU, Alaska Gasline Project Financing Specialist
Department of Revenue (DOR)

Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

ANDY MACK, Commissioner
Department of Natural Resources (DNR)
Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

MARK WIGGIN, Deputy Commissioner
Department of Natural Resources (DNR)
Anchorage, Alaska
POSITION STATEMENT: Participated in AKLNG quarterly update.

STEVE WRIGHT, Consultant and Advisor
Department of Natural Resources (DNR)
Anchorage, AK
POSITION STATEMENT: Participated in AKLNG quarterly update.

ACTION NARRATIVE

9:00:11 AM
CHAIR CATHY GIESSEL called the joint meeting of the Senate and House Resources Standing Committee to order at 9:00 a.m. Present at the call to order were Senators Stedman, von Imhof, Wielechowski, Bishop, and Chair Giessel; Senator Coghill was excused.

CO-CHAIR TARR said that Representatives Birch, Johnson, Talerico, Co-chair Josephson, and Co-chair Tarr were present at the call to order. Representative Johnston was in the audience.

CHAIR GIESSEL said that Senators Micciche and Hughes were in attendance.

AKLNG Quarterly Update

9:02:41 AM
CHAIR GIESSEL said the purpose of today's meeting was to hold a quarterly update on the Alaska LNG (AKLNG) project, which is required by Senate Bill 138 that was passed in 2014. They would hear from the Alaska Gasline Development Corporation (AGDC), the Department of Natural Resources (DNR), and the Department of Revenue (DOR), and the agencies and instrumentalities of the state charged with carrying out this project.

SENATOR MEYER joined the meeting.

CO-CHAIR TARR said that she appreciates AGDC's willingness to share information such as semi-monthly reports, financial reports, responses to individual legislators, and meetings as required by Senate Bill 138. Confidentiality agreements have been signed in some instances. She had put together a notebook of all the communications with AGDC that was available to members.

REPRESENTATIVE DRUMMOND joined the committee.

CO-CHAIR TARR said that Representative Chenault was in the audience and Representative Parish was online.

9:05:18 AM
CHAIR GIESSEL said she had chaired this committee for six years and it has been suggested to her many times that the folks testifying be placed under oath and that AS 24.25.060 allows her and other committee chairs, the president of the Senate and Speaker of the House to do so, and that a person who willfully swears or affirms falsely concerning any matter material to the subject under investigation or inquiry is guilty of perjury and upon conviction is punishable by imprisonment for not less than one year nor more than five years. She would not place anyone under oath today, but she wanted to emphasize that these meetings are recorded, and minutes are prepared. This is a very serious subject with significant implications for the state. She noted that Alaska legislative energy consultants were listening online, but their purpose today is to listen, not to testify. She reminded them that hard questions would be asked and the folks sitting at this table were placed here by the citizens of Alaska who represent them. Most private citizens wouldn't know what AGDC stands for and have entrusted the people sitting at this table to do the due diligence for them.

CO-CHAIR JOSEPHSON also invited a discussion of what they have delegated to AGDC under Title 31, because it is important, too.

CHAIR GIESSEL said the committee had submitted questions to AGDC and the answers were in the committees' packets.

CO-CHAIR TARR recognized Representatives David Guttenberg and Paul Seaton who were online.

9:09:36 AM
DAVE CRUZ, Chair, Alaska Gasline Development Corporation (AGDC), Anchorage, Alaska, said this project operates under the

guidelines mandated in SB 138. He said staff will present more details about progress over the last five months in the technical and regulatory world as well as their efforts in the commercial and financial arena. In the technical and regulatory process, they would hear about the completion of the Alaska Stand Alone Pipeline (ASAP) Supplemental Environmental Impact Statement (SEIS), one of the project's largest milestones they have been able to get done, and about how it will benefit the AKLNG project. He explained that most Alaska projects he has been involved in go through a process of conception, getting a customer and a contractor, and getting a supply, but then find out getting the federal permit is a problem. It has happened repeatedly. It should take six months in his opinion instead of the 4.5 years coupled with the continual efforts of their technical committee and U.S. Senators interfacing with the Corps of Engineers. The project went through three different project managers, which means they had to start over three times. But today they have the permit. It gives the project a right-of-way from Prudhoe Bay to Point MacKenzie as well as a 404 wetlands permit, another huge milestone.

9:12:06 AM

MR. CRUZ said he would also address the answers to the nearly 1,400 Federal Energy Regulatory Commission (FERC) questions, the publication of the first national Environmental Policy Act (NEPA) schedule, air quality permitting, U.S.-based pipe manufacturing, and outreach to Alaskans on impacts to the Kenai Spur relocation. For commercial and financial progress, the committee will also hear about completion of 15 letters of intent and the MOUs for the sale of LNG.

He has been amazed at the reception they have had from the Asian countries. Progress with their Chinese joint development agreement (JDA) counterparts and the first gas sales agreement with BP will be addressed along with work with Goldman Sachs for financing, cooperation with Department of Natural Resources (DNR) and Department of Revenue (DOR), and modeling efforts with DOR and with Legislative Budget and Audit Committee (LB&A).

MR. CRUZ said he is personally excited about the progress AGDC has made toward the goals and directions set by their board of directors. The board is not a once-a-month, rubber-stamp board and is extremely engaged in this project. Many of the members are actively on committees and are working daily with staff to help the corporation achieve its goals. Their attitude is that they are not here to study this project but to build it.

9:15:42 AM

FRANK RICHARDS, Vice President, Project Management, Alaska Gasline Development Corporation (AGDC), Anchorage, Alaska, said he would provide an update on the technical and regulatory aspects of the project and then Ms. Wilcox would provide commercial and financial updates. He said AGDC has completed the pre-FEED activities with their former project partners and on January 2017, AGDC took over that responsibility. Their main focus in 2017 was to advance the project through three primary goals: to de-risk the regulatory process, market the project to Asian markets, and seek financing opportunities to execute the project.

In 2018, they provided the Federal Energy Regulatory Commission (FERC) with over 120,000 pages of documents, went through numerous rounds of marketing to potential buyers, and obtained letters of intent from potential partners as well as a joint development agreement (JDA) with Chinese counterparts, efforts that are still under way.

On the technical side, folks are focused on de-risking the project through the regulatory process so that potential customers and suppliers can be assured that the budget is executable and that the project has the federal permits necessary to be constructed.

In the regulatory arena, both state and federal entities must interface with FERC, primarily, as the lead federal agency, which has the responsibility under the Natural Gas Act for the siting and authorization of LNG projects. This project is called the Integrated Project, because it incorporates not only the LNG plant, but the pipeline, and the gas treatment plant (GTP) on the North Slope.

MR. RICHARDS said the U.S. Department of Interior (DOI) is a very large landowner in the State of Alaska and the project must also work with them to acquire the right-of-way (ROW) to federal lands. A right-of-way grant will be the outcome of the EIS. They are also working with the Trump Administration through DOI Secretary Ryan Zienke and Assistant Interior Secretary Joe Balash on some "federal overreach" by agencies of the National Park Service and the U.S. Fish and Wild Service that want to extend their purview of Clean Air Act requirements in Alaska.

9:19:04 AM

He explained that within Alaska there are two primary distinctions of wetlands: Class 1, which are the Denali National Park and Sydney National Wildlife Refuge, and Class 2, which is the rest of Alaska. Unfortunately, some Department of Interior folks are asking that Class 1 protections be extended into Class 2 areas. So, they are bringing that to the notice of the DOI Secretary's Office and they are now working to bring that policy back in line with the Trump Administration, so they are not having that federal overreach. That's working in consultation with the Department of Environmental Conservation (DEC) that has the responsibility for clean air monitoring and permitting in the State of Alaska, so they are in alignment with the Department of Interior.

The Army Corps of Engineers is a key player, because they are the ones who are going to be providing the Section 404 wetlands permit authorizing fill to be placed in waters of the United States. To get a permit, they must provide FERC with list of what wetlands will likely be impacted and get from them the jurisdictional determination on those wetlands.

MR. RICHARDS said the ASAP project already has a jurisdictional determination on the project, which essentially encompasses 80 percent of the land that will also be used for the AKLNG Project. This is key to the completion of a wetlands mitigation plan for the final record of decision for the ASAP that was a precursor that is available to the AKLNG project. So, they feel they are making great progress and an MOA was signed between EPA and the Army Corps of Engineers on wetlands mitigation in Alaska. This is specific guidance that allows the Corps and the EPA the ability to work on wetlands mitigation, to allow for greater opportunities for mitigation outside the specific watershed where the fill is to be placed. This is an allowance to projects like this one that crosses significant number of wetlands. This is very key outcome (from within the Trump Administration) to other large natural resource developments moving forward.

9:22:03 AM
Within Alaska, particularly within the Alaska Department of Environmental Conservation (DEC), Mr. Richards said they applied for air quality permits for two major plants: the LNG plant in Nikiski and the gas treatment plant on the North Slope. Those applications go to DEC because they have been delegated the responsibility for the Clean Air Act permitting by EPA at the direction of the Alaska State Legislature. They were able to

chime in on this DOI question on federal land overreach and that is key to being heard at the federal level.

9:23:49 AM

MR. RICHARDS said the Department of Transportation and Public Facilities (DOTPF) has ongoing coordination for project planning and scheduling of DOTPF projects as they move forward including major road projects, State Transportation Improvement Program (STIP) projects under construction at the timeframe near and around execution of the projects. DOTPF was part of the state's discussion of rerouting in the Kenai Spur Highway area.

He reviewed that they applied to FERC in April 2017 and they asked questions to determine if they have sufficient information to publish a schedule. After the AGDC's responses were provided to them, the schedule was published, and it gives them 18 months to complete the FEIS, with a record of decision at the end of 2019. This is a major milestone.

Since April 2017 they have had about 1,400 FERC requests and have responded expeditiously to about 98 percent of them. The rest require field work relating to cultural resource, wetlands validation, ichthyoplankton trawls in front of the LNG plant, and air quality monitoring, and some of that data will be gathered over the summer.

MR. RICHARDS said the ASAP has validity and benefit to Alaska. Through the direction of the state legislature they continue to work forward to get to the point of obtaining the final SEIS. This milestone and record of decision that will come in August will give them a permit to be able to construct that project should the desire ever be there, but for the AKLNG project it means now there is a published National Environmental Policy Act (NEPA) document that FERC can now reference. So, following President Trump's Executive Order 13.807 (EO), which established discipline and accountability in the environmental and permitting process for the infrastructure, FERC is directed to utilize the existing NEPA document and not duplicate efforts and to work with the cooperating agencies that have already gone through this review for the very same pipeline. The projects are similar; they are both buried pipelines and have a common GTP location and the ASAP pipeline covers about 80 percent of the AKLNG route.

9:27:18 AM

On the technical side they have been advancing key plans and strategies to be ready for the next stage of project development. Their project execution plan has been updated to respond to the FERC questions that resulted in changes in sequencing of the pipeline construction rather than going north to south to go from south to north. This will create efficiencies in camp and equipment movements. They have also continued discussions with world-class engineering permit and construction contractors for execution of the FEED. This will allow them to ultimately get to a chance to have additional funding to execute those contracts to provide a lump sum turn key estimate for final investment decision (FID). Working with their key sourcing strategies they are seeing that real cost savings are available in the world market for materials and equipment. They have also engaged again with the JDA member, Sinopec, in looking at technical interactions where they had to do their own due diligence with the project. They spent countless days and hours of going over discrete details.

They also looked where the steel for the pipeline would come from beginning with the tariff talks that are under way. Certainly, there are world providers in Europe and Asia. Most recently, they have had discussions with U.S. producers about steel coil and pipe. This is very positive, because previously they didn't see 42-inch X80 pipe being rolled in the U.S. But last week they learned of pipe manufacturing in Arkansas and coil manufacturing in Illinois that could provide pipe that will meet project specifications. This is a huge benefit for U.S. sourcing for this project.

9:30:25 AM
MR. RICHARDS said AGDC understands the project will have a big impact on Alaskans not only in construction but in energy delivery and lower cost energy. The community of Nikiski where the LNG plant is located will be the most impacted, because in order to construct the plant, the Kenai Spur Highway, which runs right through the plant site, must be rerouted. The route has been selected after taking comments from the community about the options. It is called the West LNG Route, which essentially routes directly around the plant. It is the shortest of the routes and the least expensive; it also impacts the least number of landowners and is something they can be executed in a very timely manner. Since the rerouted highway will become part of the national highway system, AGDC has been working with DOTPF to make sure the route is in compliance with federal highway system design standards.

9:32:24 AM
CHAIR GIESSEL asked for questions.

SENATOR BISHOP asked the sequencing for pipeline construction during winter versus summer.

MR. RICHARDS answered they would look at how to best utilize the construction camps and equipment necessary with the various seasons. So, they would optimize the construction cadence that would work best with the challenges of break up and freeze up.

CO-CHAIR TARR recognized Representative Millett.

SENATOR MICCICHE thanked them for the meeting in Nikiski, adding that there is more work to do.

SENATOR MEYER said they mentioned having to cross several streams and wetlands and asked how the "Stand for Salmon" initiative impacts the project if it passes.

MR. RICHARDS answered that the ADF&G permitting system works currently, and the initiative adds more regulatory actions and uncertainty, which translates into additional construction risk for the project.

9:35:35 AM

REPRESENTATIVE BIRCH said the 2020-2030 forecast demand growth world-wide for LNG is about 20 bcf/day, but projects that are under construction and consideration are approximately 100 bcf/day, five times the forecast demand growth and asked who looks at that competition objectively? Where do we measure up? Does FERC play a role?

LEIZA WILCOX, Vice President, Economics and Communication, Alaska Gasline Development Corporation (AGDC), answered that FERC does not look at the worldwide demand and supply for the project, because all the LNG projects are visibly selling into the market and all markets will have more opportunities behind the scenes than the actual demand, because that is the nature of competition. The Department of Energy in granting export licenses has to make sure that U.S. demand is satisfied. So, Alaska LNG, when it was granted the 30-year license, went through that test.

9:37:41 AM

SENATOR VON IMHOF asked her thoughts on an article in the front page of today's paper saying that renewable resources are decreasing in cost and that LNG projects around the world are renegotiating their contracts to try to lower their costs, also.

MS. WILCOX answered that renewable resources are clearly a huge growth area but still take up a very small portion of the worldwide energy demand. However, they have been beating forecasts in rate of growth. A huge portion of the energy mix is still coming from coal and nuclear power, but nuclear power is being phased out in several countries. Also, renewable resources frequently, while taking up a large portion of the demand, are not rate baseload sources of energy and as coal is being phased out, natural gas is replacing that baseload as the cleaner fuel. There is no question that renewable resources on some level will compete with all energy sources, but in the market the buyers are still very interested in clean natural gas, primarily to replace the baseload of power generation from coal and in some cases, nuclear.

REPRESENTATIVE TALERICO said Mr. Richards mentioned that 80 percent of the corridor is covered by the Corps of Engineers currently and asked if the Corps is actively looking at the other 20 percent of the route in the SEIS.

MR. RICHARDS answered that they are looking at the remaining 20 percent right now.

CHAIR GIESSEL announced that the committee would now move on to the marketing and finance update, the meat of today's presentation.

9:41:24 AM
MS. WILCOX said to make sure she covered all the overall messages she would highlight the major commercial and financial milestones and activities taken since she was last before the committee. The major announcement has been securing the first set of binding terms on a gas sale and a "gas purchase for major gas sale" between BP and AGDC that was reached in May. Work is progressing on detailed agreements with BP and the other major suppliers for the project. This sets the stage for major analysis and decision making on the royalty gas, as well.

The other milestones on the financial front are the engagement of Goldman Sachs and Bank of China as capital coordinators for the project. These parties have been brought up to speed on the details of the project and are now working on the next level of detail on project financial models with those parties as well as legal and finance counsel. All of this is in preparation for the initial look at the project by the financial investors for equity considerations, and she expects a work product to come out at the end of the 3rd or 4th quarter.

MS. WILCOX said she will highlight for this body the initial overview of the project. Just like they have to do with the market in Asia, they need to get the potential investors who will need to go through due diligence familiar with the project, as well.

She would also provide slides on the evolution of AGDC's economic and financial modeling as they get more detailed and more specific to the project structure and she would finish reviewing the steps AGDC has taken to cooperate with the state agencies that are doing their own evaluation of their key decisions as well as the evaluation on the overall financial impact of the project on the State of Alaska.

9:44:54 AM
Slide 11: Balancing three drivers in the evolution of the economic and financial modeling

MS. WILCOX said all infrastructure and resource development projects have similarities. Three key drivers have to be balanced to make the project economic. One group is customers who want the competitive price. They are looking at the variety of projects in the market and comparing them to each other. That price has to be competitive for the long term. They look at other factors such as proximity, reliability, political stability of the suppliers, diversification of their portfolio (key consideration for customers that rely on the LNG as their baseload for power), but price in the end is the major factor.

Another group that needs to be satisfied is the resource owner, the State of Alaska, and the lessees on the North Slope that are selling their gas. So, the price of the gas has to be sufficient to justify its production.

The third group is financing, and the price needs to be adequate for debt and equity market returns. Risks and returns have to be balanced.

9:46:43 AM
Slide 12: Economic Value Drivers

MS. WILCOX said the illustration shows the impact on project economics from various components of the value chain. Some things have a very large impact on project economics and cost of supply such as market price, but AGDC has very little influence over them.

The things the State of Alaska will focus on are major decisions associated with payment in lieu of tax (PILT) and the upstream gas price to the extent that it's involved in the RIK/RIV deliberations, key decisions on which the legislature will have a large degree of influence. They are key to everything else on the project.

MS. WILCOX said on the surface the PILT has the lowest impact on project economics just because the per unit number is the lowest of all the factors. However, 100 percent of that payment goes to Alaskan communities and the State of Alaska, one of the reasons that even though AGDC is the current owner of the project, is exempt from property taxes. That factor has been in all of their models, economics, and negotiations. The upstream gas price, for example, while potentially a higher number than that, only a quarter of it ultimately goes to the state.

9:49:29 AM
Slide 13: Status of Agreements

MS. WLCOX explained that they look at the agreements with the market as having a key assumption in the split as to where the LNG is going. So, they are progressing the anchor capacity of roughly 75 percent, which the party in the joint development agreement (JDA), Sinopec, still expresses interest in with the JDA parties. Roughly 75 percent of the LNG exported from Nikiski would go to that anchor customer.

She said the other 25 percent of LNG exported (net of in-state gas) is reserved for any of the other customers. They have 15 letters of intent and MOUs signed and expect a subset of these agreements will be turned into definitive agreements. Some very high-quality parties are in that stack and the quality of the party, the credit worthiness of the buyer, the ability of the buyer to commit for the long term, the price offered, and the speed with which they are willing to move on the definitive agreement will all be part of the decision-making on which ones of these are going to become definitive agreements. Goldman Sachs and Bank of China are going to be engaged in the step by step in all of these discussions to vet the contracts to make sure the contracts can ultimately be financed, because the purchase of LNG contracts ultimately is what will backstop the financing.

MS. WILCOX said she had already made most of the points on slide 14, other than to say they had a meeting with a work team of about 40 people in March, but that is hardly the only interaction they have had with these parties. They had good meetings at the World Gas Conference two weeks ago where JDA parties affirmed their desire to conclude the definitive agreements this year. They have worked through a framework period of defining their roles and worked through major project due diligence. Currently, they are helping Sinopec interact with the producing companies to conduct due diligence on the resource.

9:51:28 AM
Slide 15: Gas Supply Agreements

Additionally, Ms. Wilcox said, they consider gas supply agreements key to the next step in the project financing, which is the raising of equity, and that is why they have been very focused on this for the first half of the year. Because the gas supply is coming from two anchor fields and LNG can go almost anywhere in the Asian market, but the gas can only come from two places for the financing period of the project, it is clearly a key consideration for financing of the project.

Slide 16: Modeling Status and Development

MS. WILCOX said when they started their modeling it was focused on a tolling structure, which is still the underlying structure of the project: so, that the mid-stream invests and receives a toll for capacity. While the commercial structure has shifted a bit to have a gas purchase and an LNG sale component in it, they have been modifying and basically making the models more sophisticated. So, the basic cash flow numbers they shared with the legislature came from that generation of models prior to Goldman Sachs coming in and starting the work on conducting due diligence and making sure the model is detailed enough to be a true project finance model. That work is now on-going, and she expects that as they roll out that first equity look at the project in 4th quarter it will be presented with that new generation of numbers behind it with a new level of detail. As they go along the investment model becomes more complex and includes more detailed assumptions and has more oversite by the capital coordinators such as Goldman Sachs. In addition, the DOR has full access to information in the model and state agencies are doing their own evaluation of the project.

9:54:05 AM

MS. WILCOX said slide 17 had nothing particularly new on the model structure; they are current inputs. However, the in-state number should be $500 million not $600 million. The assumption will remain the same broadly but the level of detail in the model will increase. AGDC's price expectation is $8.00-$9.00 delivered to Asian, with $0.80 shipping (for 15-20-year offtake agreements).

9:55:34 AM

SENATOR VON IMHOF had a question on slide 14. The middle of the page says Sinopec is on track for 75 percent of the project offtake. What does this exactly mean? Is there an exchange for what? And is there a minimum offtake that they must take at any point?

MS. WILCOX replied that means they could take up to 75 percent of the three-train export volume from Nikiski. Roughly speaking, if the maximum capacity of the three trains is 10 million tons per year, they would sign up for 15 million tons of it. That is an indication of what they are willing to sign an offtake agreement for. There may be some downshift provisions in an LNG agreement, some come in on the Gulf Coast contracts, but for greenfield facilities they are generally limited, because every greenfield facility needs to know that it can pay for its financing. The banks that are financing 75 percent of the project cost through the debt will make sure that those agreements contain the appropriate take or pay provisions to ensure that financing.

9:57:22 AM

SENATOR VON IMHOF said that answered everything except for in exchange for what. Would Sinopec pay a tariff in order to cover the cost of that in exchange for what, a slightly smaller price at the pump?

MS. WILCOX answered that the exchange will be for an LNG price. Part of what they are seeking from the JDA parties in the deal are beneficial financing terms from the Bank of China to allow for a customer price that doesn't harm the project but provides for a beneficial deal for the off-taker. It is frequently part of LNG project financing that the buyer country banks step up and finance on beneficial terms with buyer country off-takers. To the extent there are savings from capital coming from China, she would expect the buyer to take advantage of it but without creating harm to the project.

9:59:47 AM

REPRESENTATIVE BIRCH said one of her slides indicated that the lease price is the component that the state has the least influence on but that it has the most impact and said as recently as last week prices for gas in British Columbia (BC), which is attempting export through Kitimat, were as low as \$0.82/mmbcf; Henry Hub was around \$2.85 at the same time. Given the sensitivity of price on making this project successful or not, and 75 percent going to Sinopec, they witnessed dynamics in the tariff world in terms of impacting Alaska seafood sales. He asked how that risk is evaluated and who accepts that risk.

MS. WILCOX replied clearly for a project of this size the trade considerations are key generally on the buyer's side, because they are the ones needing to pay the tariff into the market. It will be a consideration in the buyer's decision to conclude the contract, because once it is concluded the price won't be discounted for tariffs. She assumed they have similar consideration for any of the source of LNG that they are buying, because different countries have different issues. That being said, this project is very well regarded in the government and trade circles of both countries.

10:01:50 AM
SENATOR MICCICHE referenced slide 12 and said upstream prices and gas sales agreements as one of the most impactful value drivers and asked percentage of the required supply BP has secured? How much further can a financing package move without securing the additional minimum volumes. What kind of risk is included in the JDA's to the state?

MS. WILCOX replied that BP is the working interest owner of about 26 percent in Prudhoe Bay and 32 percent at Point Thomson. So, BP's gas supply agreement reflects the full major gas sale contribution from that working interest owner. The state's share (RIK or RIV) is also within that working interest owner share. So, in the end that gas will come as part of the RIV that BP produces or if the state chooses to RIK it will have a separate agreement for the purchase of that gas.

She related that they don't expect partial production out of the fields. They expect all of the gas supply to come to the project at the same time in those percentages. That is why they are working diligently on the other gas supply, as well. They don't expect any risks to the state to be present in the agreements from the gas supply. How much risk the project will have is subject to negotiation and they will certainly be working to minimize that. Their project model expects to pass on the cost of the gas supply to the customer to the extent there is any requirements to buy a certain amount of gas at a certain price.

MS. WILCOX said that the financing is very much a matter of degree. Just the fact of reaching this milestone is a benchmark that a potential equity investor can look at and say okay the project is making progress. Every time a milestone is reached it de-risks the project. One-hundred percent of the gas supply would have to be locked up in order to raise the post FID equity to actually close the deal. It doesn't mean you can't keep working on the terms, but those will be conditional. As more of these agreements are concluded and included in the project considerations, so the price and volumes and terms are known and essentially, the financing will become more certain and cheaper.

10:05:36 AM
CO-CHAIR TARR recognized Representatives Rauscher and Ortiz and Speaker Edgmon online. She asked for an update on the impacts on the project of the President's trade conflicts with China.

MR. RICHARDS responded that steel pipe is included in President Trump's tariff and that would be impacted. What they didn't see particularly related to this project is module construction for the plants and compressor stations. The modular units for compressor stations were not in the code. China did not include LNG in their tariff code, a positive sign. Alaska gas has high visibility in China and hopefully will not be impacted much by the tariffs.

SENATOR WIELECHOWSKI said for many years ExxonMobil testified that the breakeven point on this project was $12 and asked what the breakeven point is now and what would the tariff be. Also, what return does he expect at $8 or $9 LNG purchase. What kind of progress is there in the agreements for the minimum gas supply?

10:08:42 AM
MS. WILCOX answered the fact that the breakeven point for the project has gone from $12 to $8-ish is a reflection of the fact that the commercial structure has changed. It is not just through the state stepping in and continuing the project; it is also through the fact that the project finance model is being used for the entire project and seeks investors wanting a utility-level rate of return rather than an oil and gas company upstream rate of return, which requires a higher pricing in order to execute the project in the competitive market. A project finance structure is necessary in the current price

environment. It achieves a return of about 8-10 percent with current assumptions. At $9, the return would be higher. The state could invest in the project and if it chose to, that is what it could expect that kind of return.

SENATOR WIELECHOWSKI asked what tariff she anticipates and what progress they have had with other producers on the remaining minimum gas supply agreements.

10:11:18 AM
MS. WILCOX responded by explaining the project setup: the project buys the gas; it sells the LNG and receives a price for the LNG and then it pays a toll. The toll to the project at the price levels it can afford is somewhere around $6. The toll generates the return for the project investor and covers debt and operations. The pricing of the LNG gas supply agreements need to be structured so that the seller of the LNG can afford the toll and doesn't face excessive risk on downside prices. Gulf Coast projects have covered this risk exclusively with tolls in the pricing structure for the LNG. They have a commodity price, which is indexed to Henry Hub and then they have a tolling part of the project.

Progress they are making with the other major gas sellers: they are nearing completion on the similar level of detail on the binding terms that was concluded with BP, and in some cases, at the same time they are negotiating detailed gas sales agreements or sections of them, because not every producer has an interest in including a term sheet and might go straight to a detailed agreement, which takes longer.

10:13:14 AM
CHAIR GIESSEL asked for more detail on what expansion opportunity is available to additional producers and the $1 to $1 spread for wellhead gas purchase on slide 17. She then invited the Department of Revenue to comment.

10:13:50 AM
MIKE BARNHILL, Deputy Commissioner, Department of Revenue (DOR), said he organized his presentation around a progress report on the five questions from the co-chair:
- DOR Fiscal Model(s)
- DOR Work Plan
- Overview of Risks to State of Alaska
- Payment-in-lieu-of-Taxes (PILT)
- Fiscal implications of Upstream Infrastructure Costs

He shared an organizational chart and said they are considering consultants that the legislature funded for FY19 and that several staff within the Tax Division are subject matter experts for institutional knowledge and complex tax questions.

10:18:04 AM
MARIA TSU, Alaska Gasline Project Financing Specialist, Department of Revenue (DOR), related her finance background of about 20 years. She started as the project financing specialist is February and works closely with the AGDC team half the time and with the Department of Revenue and DNR staff for the half of her time. Close cooperation has proved to be very beneficial to what DOR is trying to achieve in terms of understanding all the moving parts of this project.

10:19:52 AM
Slide 4
MS. TSU said she would provide an update on the various models DOR is responsible for and their goals, which are to provide an objective view of project posed in terms of the opportunity as well as the risks to the state. They hope to evaluate the various fiscal implications of the project for the state broken into three different aspects. The first is if the state were not a direct investor in the project, what kind of revenues flow to the state from royalties, taxes, and PILT.

Second would be in the event the state does take an equity ownership position, whether that is through an appropriation made to AGDC where they invest in the project or otherwise secure financing resources, or whether other state sources of capital are invested in the project: what revenues would flow to the state from that.

Finally, bringing the two pieces together they are looking at the implications for the state's fiscal situation with or without the project. The DOR is providing a role in evaluating financial risks to the state and whether there are ways to mitigate those risks. Finally, they see an important goal for the DOR to assist the state and the legislature in making the decision to invest in the project as an equity investor and what the financing options would be.

10:22:36 AM
MS. TSU said several modeling efforts are under way. One is to work with AGDC to model the project economics, which is sometimes referred to as the mid-stream. A second model looks at

the up-stream in terms of implications for taxes and royalties and the net revenues that would flow to the state.

The PILT needs its own special modeling effort: how it compares to a property tax structure, the pros and cons of one approach versus another, and the impacts on the project economics as well as the payments to the state and communities.

Fourth is a fiscal model that provides an overview of how the first three pieces work together and how revenues flow to the state in the different scenarios.

A fifth model is of the broader economic benefits to the state of Alaska, which would require additional consultant resources.

MS. TSU explained that they are approaching these models by key functionalities: first calculate the economics of the project around key assumptions and then do scenario analysis around the base case assumptions. Conduct stress testing to better understand risks and effectiveness of mitigation measures and then review the benefits and the risks to the state.

10:25:19 AM

Slide 6 Status of DOR's fiscal models

MS. TSU said the DOR project model is still under development and models the economics of the project to the state, so that would be directly associated with the state's equity ownership in the project, whether that is through AGDC or other state investment, which could be other sources of capital appropriated by the legislature, or other state funds which would have their own fiduciary process to review the opportunity. She is engaging with the outside consultant, Greengate LLC, who has a lot of expertise in the area.

10:26:40 AM

The DOR royalty and tax fiscal model models the upstream, which will focus on the royalty and tax and this is where the Tax Division will be particularly helpful to the extent the DOR has an existing fiscal model that is used to create the Revenue Sources book every year as well as the forward-looking projections to revenues. It's very detailed and seems like an ideal tool for this purpose to provide the state a look at assumptions with and without project scenarios. They are in the early stages of assessing the data needs with the help of DNR.

MS. TSU said a vital part of the question that came to them was to discuss the project benchmarks that DOR needs to complete its work and she said in this endeavor it is helpful for her to split her time with AGDC and have access to their model and commercial teams. And as AGDC starts to finalize various portions, to the extent that their model can closely model what AGDC is doing will allow progress to be made. She said that concludes her remarks on the modeling question.

10:28:49 AM
CHAIR GIESSEL thanked the department for answering each question through the power point. She said Ms. Tsu's name was listed with state employees who are not primarily AGDC employees who are working part time or on call for AGDC it is important to note that she works with AGDC but not for AGDC.

MS. TSU agreed and added that her role has evolved since she was first hired. As time went on, it became clear that the DOR needed its own modeling effort to model the questions the state has and to address the issues that it is responsible for. They also understand that given the importance of the state's role in this project, there is a clear understanding that DOR needs quite a bit of transparency into the project negotiations and how things are structured.

CHAIR GIESSEL said she is comforted by that clarity, because Ms. Tsu's role is to stand with the state, which is separate from that semi-independent organization called AGDC. There is concern that there is not an executive branch interference in what should be a separate stand-alone entity called AGDC.

MR. BARNHILL remarked that this modeling effort is foundational to everything the DOR is doing.

10:32:47 AM
REPRESENTATIVE BIRCH said one of his concerns is over the "push" to compel an investment by the Alaska Permanent Fund Corporation in a project that may not have been fully vetted. Part of that concern is offset by the prudent man investment rule that governs the fund's investments. He asked if Ms. Tsu could explain her understanding of this rule as it relates to responsible investment decisions by the Permanent Fund board, based on her experience with the fund.

MS. TSU explained the concept like this: as the Permanent Fund considers a particular investment opportunity, they consider how a similarly situated investor with similar opportunities would see that as an investment to undertake, whether it's beneficial in the context of the overall diversification in the portfolio structure to ultimately achieve the investment results that they are looking for.

10:35:28 AM
CHAIR GIESSEL went on to question 2 about Alaska's potential investment.

MR. BARNHILL said the second question is to describe the DOR's work plan and the department looks to authorities that are set out in law, regulations, and administrative orders (slide 7) to define what their role is and therefore their work plan going forward.

The first law that guides what they do is SB 138 that set out five roles for DOR in conjunction with the AKLNG project. These continuing tasks are: report to legislature on a range of financing options for the state to invest in this project. The DOR didn't participate in the development of the draft interim report which was submitted to the legislature in 2015. That was done under the auspicious of an investment firm called Lazard. They did a very thorough analysis. SB 138 called upon the department to submit that and they did. It also calls upon the DOR to convert that draft interim report to a final report submitted concurrently with when the DNR submits an agreement under AS 38.05.020(b)(11) for legislative approval. A variety of agreements are set out in that statute; for example, a gas sales agreement to which the state is a party. They remain in constant communication with the DNR; one way is with their weekly meetings on Thursdays. At this point, they don’t have Lazard on contract, but they will bring someone on going forward.

Another point: submit a report to legislature on a plan and recommend legislation to permit co-owners with the state in any investment in the AKLNG project. SB 138 specified municipalities, regional corporations and residents. Lazard's report has some slides on this. The timing is concurrent with the DOR submitting agreements to the legislature for approval.

There may be a scenario in which the DNR doesn't submit agreements for legislative approval under that statute, and everyone will find out at roughly the same time if that scenario comes to pass. In the event it does, the DOR will still finalize the Lazard report within a reasonable period of time and will provide advice and recommendations to the legislature on co-owner participation by municipalities, regional corporations and

Alaska residents. He assured them that they won't use that as an opportunity to duck responsibilities.

MR. BARNHILL said the next goal is to consult with the DNR on gas sales agreements under AS 38.05.020(b)(11) and they are doing that.

Next, they are re-engaging the Municipal Advisory Gas Project Review Board (MAGPR Board). He explained that SB 138 called upon the governor to establish an advisory group made up of representatives from the municipal community. By the time it was passed, Governor Parnell had already established such a group under Administrative Order (AO) 269 and that is where the acronym comes from.

Both the AO and SB 138 task the governor with engaging with the municipal community and asking this advisory group to report to the governor on a number of items: should there be adjustments or changes to the state's oil and gas property tax under AS 43.56, changes or adjustments to the municipal analogue to that in AS 29.45, there should be an evaluation of the impacts of a project like on municipalities.

10:43:05 AM
The MAGPR Board has 12 members and is chaired by the DOR commissioner or his designee. Mr. Barnhill said he is currently the commissioner's designee, but the board has not met in quite a while. A report was submitted to the governor in early 2016 and it is posted on their website. People have asked what the board plans to do, and the DOR needs to quickly "climb the learning curve" on community impact issues as well as how PILT works through the remainder of this year. Sometime in Q4 2018 they will engage with the board. They have had informal communications with members of the municipal community and see this as an opportunity for constructive engagement on these issues. Various folks have indicated that there is a range of perspectives on how PILT should be constructed, distributed, allocated, and measured. The ability to achieve concrete consensus in the municipal community may be strained, but that doesn't mean they shouldn't engage with them, and they intend to do that.

MR. BARNHILL concluded that is what they see as SB 138 tasks in front of them and they are committed to fulfilling all of them within the time specified.

10:45:16 AM

Outside the parameters of SB 138, Mr. Barnhill said, AGDC is doing a "first equity look" at the end of this year. He anticipates part of that will be an invitation to the state as an investor to also take a look, and they want to be prepared for that. Ms. Tsu is on staff to help with that effort.

The first step will be to identify and provide a recommendation to the governor and the legislature on the sources of capital that could be used to participate in the opportunity. Three sources of capital are seen. They are not mutually exclusive and can be used in combination. The biggest one is the $65 billion Permanent Fund. He emphasized they don't speak for the Permanent Fund; it has its own process, board, and authorities. Another is the Retirement Management Board; the DOR sits on that board but it doesn't control the decisions on how to invest in it. The treasury staff is under the DOR commissioner's supervision.

MR. BARNHILL said various pots of money are invested under the authority of the DOR commissioner and include the General Fund (GF), the Constitutional Budget Reserve (CBR), and the Board of Cost Equalization. There are dozens of types of funds and the legislature's ability to appropriate from each of those varies based on statute. To the extent they believe as part of evaluating an opportunity to invest, the legislature should participate through appropriation and the DOR will provide the information on the statutes that govern that.

Second is issuance of debt: various entities within the State of Alaska have been give the power statutorily to issue debt for various purposes relating to the gas pipeline. The role of the DOR in approving those may differ depending on the statute, but that is a source of capital.

Finally, investment of state funds is separate from appropriation of state funds. The Permanent Fund has the power to invest its assets under its purview pursuant to the prudent investor rule, its statutes, and its requirements for due diligence. Likewise, the commissioner has the ability to invest state funds - the CBR, the GF, and Power Cost Equalization - pursuant to the requirements set out in statute with respect to the commissioner's funds, the prudent investor rule, and the fiduciary standard of care set out in AS 37.10.071. There are also specific statutory authorities in some cases on what can't be invested in. These used to be called the legal list, but in most cases the legislature has dispensed with legal list requirements in favor of the prudent investor rule.

Investing state funds without getting an appropriation from the legislature has some substantial hurdles; the biggest one is the due diligence and compliance with statutory duties.

10:50:25 AM
Finally, Mr. Barnhill said, every case needs an approval of a fiduciary before an investment is made. This all begs the question of what if they go through the whole analysis and the fiduciary decides to pass on it. That is not necessarily the end of the story. In some cases, the legislature still has the power to appropriate state funds, but not for retirement system assets. The legislature could return to some sort of a legal list and authorize investment in a particular type of investment so long as its compliant with the prudent investor rule and has fiduciary approval.

MR. BARNHILL explained that he spent time talking about the three approaches because this project has been on the radar of every gubernatorial administration since 1977, and the department is staffing up to provide recommendations at the appropriate time.

The next point is to identify and recommend a capital structure, and Ms. Tsu has expertise in how to combine these sources of capital, particularly debt and equity, that make the most sense and achieves the best return at the lowest cost of capital.

10:53:18 AM
SENATOR WIELECHOWSKI said in the last presentation they were trying to get the price of state participation down to around $6-$10 billion.

MR. BARNHILL responded that $44 billion is what they are using for a total project cost, and at 25 percent, the State of Alaska would be investing $11 billion. Within that $11 billion is where structuring analysis would be done on debt versus equity.

SENATOR BISHOP commented that one of the most important things the state can do is the modeling, and asked how it is weighted: on the side of caution or optimism?

MS. TSU replied that it starts out by being objective in terms of taking the base case set of assumptions based on the most likely set of commercial terms that AGDC is looking to negotiate and then looks at sensitivities around those assumptions. Having an experienced LNG project finance expert, such as Greengate LLC, who works with other government sponsors of the LNG projects, they have the perspective of the lenders who tend to be banks and very risk averse. He brings that perspective to the table. He spent two days with staff last week and one of the work plans they discussed was after building the mechanics of the model and looking at base case assumptions that there would be an effort to calibrate the model to current market conditions and try to be as realistic as possible about available financing and make other adjustments in terms of trying to inject some realism. For instance, projects like this have delays and it's reasonable to look at a set of assumptions where construction delays occur and how that impacts the project economics.

In conclusion, she didn't want to say whether the modeling is optimistic versus pessimistic. It's trying to be objective and realistic, and then having the benefit of an expert consultant to guide assumptions that are reasonable in the marketplace, and then looking at a reasonable set of stress conditions that could cause the project to experience downside risk and what that would mean for the state.

10:57:45 AM
MR. BARNHILL added that between the Permanent Fund and the retirement system the state has about $90 billion of capital invested in various capital markets around the world. It's not unusual to evaluate investments in "bite sizes" of $1-$500 million. For every one of those proposed investments, there is a standard and very rigorous set of due diligence practices that are applied looking at risks. Ultimately, you are trying to answer the question: is the projected return commensurate with the expected risks and are you being compensated for the risk? Risk is wanted in an investment context, he said, but the state needs to be adequately compensated for it. That is where it gets the bang for the buck.

10:59:03 AM
SENATOR STEDMAN said some are concerned about the state's exposure as an equity investor, because it's normal for mega projects to go over by 20 percent - if it's only 20 percent it's a success and it's not so good if you're over by 100 percent. Once you are in, you are in. He knows AGDC has put in contingencies, but that is different than cost overruns, and $10 billion isn't out of the realm of possibilities. How can they factor in the state exposure at capital calls if they draw on the Permanent Fund or some other fund?

MR. BARNHILL agreed absolutely that cost overrun is a risk and remembered the TransAlaska Pipeline System (TAPS) ended up going three times over the original estimate. That risk has to be evaluated. The downstream ramifications of cost overruns will be part of the analysis. Additional state liability with respect to equity exposure in this project is probably a question for the Department of Law. Probably the more this project can be constructed in a way that is non-recourse to the state, the better.

11:01:43 AM
CO-CHAIR TARR said if the state takes over the project, the return on investment can be lower than with previous partners and asked if the department uses a standard rate of return on investment in the evaluation. Is it anticipated that there will be additional joint venture agreements to put the overall financing package together and what responsibility would the state have to those other entities?

MS. TSU answered that the return to the state must be commensurate with the risk. To the extent the state is potentially taking a lot of risk on this project just by the nature of it being a green field project, it should be compensated. A project can be de-risked by setting up key milestones to meet as it progresses, and as the project is de-risked the level of return the state might expect to receive on a going forward basis might be less than at a very early stage of the project when risks are quite high. "So, there are ways the state can potentially get comfortable with accepting a lower return, for example, by waiting until more of the milestones are met and more of the project is de-risked..."

MS. TSU said she thought the state would have to participate in order to move the project forward, to prevent the state's equity interest from being diluted, and for the state to not lose control of the project. The construction development is one of the high-risk phases of the project. For example, if the state would make an investment in the project when it is largely de-risked, at that point it can evaluate a solid projection of returns to the project and potentially get comfortable with making an investment in the project where it would be expected to earn infrastructure-like returns of mid to high single digits with a very stable inflation protected revenue stream. She summarized that the risks to the state depend on what phase of the project the state decides to invest in and the returns need to reflect that level of risk.

CO-CHAIR TARR asked if she was talking about the CBR or other opportunities for investment; did she evaluate those as just that entity participating in a lump sum sort of way or is it anticipated that there would be other business arrangements. For example, AGDC has already formed other subsidiaries for some of the work. How complicated does the structure get as these different things are evaluated?

MS. TSU responded that how the state invests will depend on a legal structure that holds the state's investment. If it's through an appropriation, AGDC in some ways represents the legal structure through which that investment is made. Similarly, if one of the other funds would make an investment a legal entity would have to be created to hold that structure. If it's a source of capital that is not the state, it is AGDC's responsibility to form whatever structures, joint ventures, or limited liability vehicles needed.

CHAIR GIESSEL noted that Ms. Tsu was referring to the risk chart on slide 11, which they wouldn't get to today.

SENATOR STEDMAN followed up that the Permanent Fund is the ultimate backup plan the state has for its pension plan, economic mayhem, or whatever may happen to us, and the AGDC is insulated from the Permanent Fund, the CBR, the pension plan and any other asset they may have. Anything AGDC owns, the state owns, too. And since Arctic projects have a higher probability of substantial cost overruns in the billions, he asked if the department could in its analysis isolate the Arctic projects from other world-wide projects. He summarized: "I don't mind betting the cow, but there is no way I'm betting the farm."

11:09:26 AM
MR. BARNHILL responded that he would take his advice to heart.

CHAIR GIESSEL asked if he had any closing remarks.

MR. BARNHILL said he would go into more of the minutie of the investment analysis process, but one concept he wanted to introduce to the committee is the "investment policy statement," which looks at things like the investment horizon, asset allocation, and appropriateness for particular types of investments for different investment horizons.

CHAIR GIESSEL thanked him for his presentation and asked whether the DOR in collaboration with the 3rd floor is planning to propose any statute changes related to this project. Also, Senator Stedman pointed out that there was a clear wall between the AGDC and the State of Alaska and asked what scenario might pierce that corporate veil and make the state liable for any kinds of lawsuits or cost overruns.

MR. BARNHILL said that answer would come from the Department of Law.

CHAIR GIESSEL said she would pose it to them and get the answer to the committee. She thanked the department for the work they are doing and related her confidence and trust.

11:11:59 AM

CHAIR GIESSEL welcomed the Department of Natural Resources (DNR) to present saying they are responsible for safeguarding the molecules. She noted a list of questions that were posed to the department that they would be answering in their presentation.

11:13:00 AM

ANDY MACK, Commissioner, Department of Natural Resources (DNR), said their presentation was based on seven questions in the letter they received on June 26. (slide 2) The first 10 slides addressed question 1 and there is no slide on question 7. He thanked the legislature for the funding appropriated in this year's budget and said having it is critical to moving forward. The reason they have a lot of work to do is that they are very optimistic about what they see happening. A joint development agreement was signed that was the result of the Governor making a very clear and strategic decision to go into the market and find out what it might be interested in buying and how they would view the State of Alaska and the resource that was in place.

He was able to travel to Asia with the Governor for a couple of days that resulted in the JDA the included the endorsement of President Xi. It is a significant and strong indicator that large companies - Sinopec, Bank of China, and CIC - are interested in engaging in Alaska. Critical in the paradigm shift is that the old process looked at an equity-based model which required a certain level of return, particularly for the three companies involved in that project. The risk profile of the project has shifted entirely and 75 percent of the project cost, if they can get to an agreement, is borne by the debtor.

The JDA is great and the announcement on May 7 that BP and AGDC had come to some agreement regarding term and price was critical. DNR had not experienced that event, and it caused them to focus very clearly on defining their obligation. This presentation is about the determination of RIK or RIV. Slide 9 describes where they stand in the process.

COMMISSIONER MACK asserted that the prudent investor rule for the Permanent Fund is in AS 37.13.128. He is on the Board of Trustees for the Permanent Fund and as such, he thought it was premature to talk about the source of state funding as it had not been discussed. He cautioned against speculation.

He said slide 3 illustrated the DNR team organizational chart. When he came into this job in 2016, the existing team was constructed to participate in the integrated AKLNG project and was no longer needed. That team basically stood down while the important pieces were retained. Black & Veatch was part of the old team and is still on contract. He said $750,000 is going to be used to supplement some of the contracts, which were cobbled together to keep the process going. So, they might report back that they are funding other contractors as needed.

Slide 4 shows the DNR's broad framework. Their obligation is to maximize the value of the state resource. So, it is forward-looking. It's something that every administration does, and they take their responsibilities seriously. They are engaged in extensive due diligence to enable a sound decision regarding determination of RIK or RIV. This includes project modeling, understanding project structure, and engaging with producers and AGDC. He said the general best interest of the state statute, which is unrelated to royalty sales and AGDC is covered in AS.38.05.180(a) on slide 4 and that slides 5-10 will be covered by Mr. Wiggin, and Mr. Wright will cover the rest.

11:21:17 AM
MARK WIGGIN, Deputy Commissioner, Department of Natural Resources (DNR), said he would present DNR's stance on ongoing efforts to analyze, support, and advance the AKLNG project. His entire presentation would address question one of the seven question from June 26. He said the flow chart on slide 9 would help them understand DNR's statutory obligations as part of this process. He said the legislature also has a role in reviewing the DNR best interest finding process and pointed out key blocks in the RIK/RIV process where the legislature could intervene.

MR. WIGGIN explained that this very good chart laid out three paths: RIV, RIK, and the amending of the leases process, which came out of SB 31.

Back to slide 5, on the potential RIK/RIV decisions. He said it will not be "selection of" but rather "the determination of" what is in the best interest of the state (should it take royalty as gas or take royalty value from the AKLNG project in monies). The second very large decision, which is somewhat of a subset, is would DNR seek to agree to amend the leases per SB 31. The lease amendment process enshrined in SB 31 includes particular items:

-Eliminating switching between RIK and RIV within the leases, which the state now has the option of doing every six months.

-Establish a valuation methodology for RIV production. The current evaluation methodology is a "higher of methodology." The question is "is that the best and does it fit the project structure."

-Issues related to royalty raised from net profit-sharing rates (NPSR).

The third bullet on slide 5: should the process result in RIK as being in the best interest of the state, then obviously they will engage further discussions about gas sales terms and ultimately gas sales agreements. This has begun already with a draft term sheet.

The fourth bullet: should the process result in RIV, they will have to engage in this valuation process in terms of how to value production from the working interest owners, which isn't simple.

11:28:28 AM

Slide 6: If RIV is determined, the legislature can revoke it. If RIK is determined by the DNR commissioner to be in the best interest of the state, the RIK contract will likewise be subject to the Oil and Gas Royalty Board and the legislative process.

MR. WIGGIN said DNR will conduct and issue a Lease Modification Best Interest Finding (BIF) for either RIK or RIV. Per current leases, the state can switch between RIV and RIK on six months' notice. If the determination is made that RIK is in the best interest of the state, they will be in a position where (based on all conversations and assumptions) AGDC will buy the state's royalty gas volumes through a non-competitive process. The state is very familiar with this and so is the legislature.

Slide 7: The best interest finding for this particular appraisal will include:

-Price

-Impacts on state economy

-Impacts on private investment
-In-state needs for gas
-Local investment and jobs
-Social and environmental impacts

11:33:00 AM
Slide 8: The lease modification process was enshrined in SB 138 and permitted DNR to change lease terms potentially to advantage the project. In doing so, there will be a very rigorous best interest finding. The assessment will include:
-Confirmation that eliminating the switching between RIK and RIV will materially improve the likelihood and success of the gas project.
-The gas project will have to confirmation that has sufficient financial commitment for a work plan and budget for major permits and regulatory filings.
-The project has sufficient gas commitment from the lessees.
-Each lease will produce hydrocarbons that will be transported by the gas project during the initial project term. (This has to do with making sure that all leases are producing volumes of gas to support the project.)

MR. WIGGIN said that was the end of his presentation and asked for questions.

REPRESENTATIVE JOSEPHSON said in the original SB 138 model the 25 percent share was derived because they figured that was the aggregate of 12.25 percent plus a 13 percent severance tax. He asked if the lease modification on slide 8 could adjust the royalty rate to a different figure altogether.

MR. WIGGIN replied that the main lease modification that would take the vast majority of time is the issue of switching from RIV to RIK. The royalty rate issue is not that significant. The producers have expressed interest in the state selecting one and sticking with it for the additional project term.

11:36:59 AM
COMMISSIONER MACK stated that with the knowledge that there is an actual understanding between AGDC and BP on term price, they have spent a great deal of time in evaluating moving forward on their RIK determination. He said the RIK process is pretty well-known. A royalty contract is run through the Royalty Board and the legislature has the opportunity to vote for or against a royalty contract.

What is the legislature's authority in an RIV situation? Does it have the ability to object? Commissioner Mack answered that a process is in place for an RIV selection, but the state's priority is RIK. If they don't take RIK, they have to inform the legislature of the RIV determination by letter in March 2019. If they do so, they have to submit it at the start of the legislative session per AS 38.05.182(a). then there is an open period under AS 38.05.182(b) for 60 days in which the legislature by concurrent resolution can revoke the determination to select RIV. That would send the whole process back to the starting line.

COMMISSIONER MACK said the confidentiality agreements are a specific item in SB 138 (AS 38.05.020(b), section 12, and his team has talked directly with the working interest owners and focused on what they prefer and whether they need an absolute decision on switching and other upstream questions. And as Mr. Wiggin mentioned, they have been in direct dialogue with AGDC about a gas sale for DNR; the most important parts of that are term and price.

11:41:56 AM
CHAIR GIESSEL asked if the Prudhoe Bay leases have any peculiarities that relate to the RIV/RIK determination.

COMMISSIONER MACK answered he thought not, but a more important question from his perspective is the settlement agreement around PTU. He anticipates discussions around that agreement and binding it with what is going on in the project and what is called for in SB 138 regarding switching. The basic thesis at Prudhoe Bay is the royalty set out in the leases.

CHAIR GIESSEL said there is some controversy over where field cost allowances come in in terms of deductibility to the royalty. She understands that a disagreement exits between DNR and some producers, and he is now a decision-maker in that.

COMMISSIONER MACK responded that he couldn't comment on that.

CHAIR GIESSEL asked him to explain the implications of field cost allowance deductibility.

COMMISSIONER MACK replied there is a question on appeal to the commissioner's office that primarily concerns leases, which are not subject to current field cost allowance agreements or settlements in other units. The question is the amount of expenses if deducted and applied and their timing on state finances.

CHAIR GIESSEL asked if field cost allowances are deductible against royalty for oil or gas could have a material effect going forward.

COMMISSIONER MACK replied that he couldn't comment on that, because the issue is before the commissioner now, but that could be one of the potential considerations.

11:45:44 AM
REPRESENTATIVE BIRCH said the Corps of Engineers released the final SEIS on the Alaska Standalone Pipeline Project in June, and within a week the administration attempted to intervene on their independent assessment through an Environmental Impact Statement (EIS) on the Pebble Project. As the only mining engineer in the legislature, he was concerned about the process he went through in evaluating which projects are permitted to have that independent Environmental Impact Statement (EIS) assessment by the Corp and which are not.

COMMISSIONER MACK said the department did not intervene in that process. They have a very long history in Alaska of taking definite positions on a variety of projects. They are actually cooperating in the Environmental Impact Statement (EIS) he is referring to. "We believe every project across the state has to stand on its own merits," he said. There are a variety of considerations:
1. Can it be done environmentally?
2. Does it have support from the state or the locality where it is occurring?
3. Does it make financial sense for the state?

He explained that in 2017 the department provided a permit for the project, and in 2018 another application contemplated some 84 holes to be drilled and those was permitted, as well. They were very careful in ensuring that the project proponent was mindful of the district's concerns. In 2018, they were determined to be a cooperating agency in the process and asked local communities and tribes to consider the scoping period but got to the point where they didn't understand the size of that project, because it had changed from older proposals.

11:49:52 AM
SENATOR MICCICHE said his question is about timing and DNR's collaboration with DOR. While they are largely supportive of the

project, there is the upstream exposure to 35 percent deductions on capex, O&M, the carry forwards losses, and the pre-'79 leases for royalty on those costs to worry about. He asked if anything is left in the early years to consider on RIK and RIV and how DNR is dovetailing with DOR. Can you deliver some comfort that collaboration is taking place and is there a point where he can share with the legislature that both departments are comfortable with the exposure in what may be remaining for the state's share?

COMMISSIONER MACK responded that DNR and DOR have an excellent relationship. They actually have a scheduled meeting every Thursday with an open agenda. The obligation is in statute and the process is often discussed at length. They are also very cognizant of the requirement of many parts of the law including SB 138 where it says "DNR in consultation with DOR shall or may." Those words are repeated in that particular law about a half dozen times.

SENATOR MICCICHE asked where the remaining revenue is on the priority list of both departments.

COMMISSIONER MACK replied that they are getting ahead of themselves in the process. They have been focused on the determination of an RIK or an RIV. Once that is done, the question is what is in the best interest of the state and if revenue is being derived from AGDC and the sale of the royalty gas, how that is harmonized and explained, and they just haven't gotten there. However, they recognize it as a tension between the need of the project to be financial and the obligation in the constitutional and statutory requirement for DNR to maximize the value of the resource. He said they would see the departments doing their job to get to some decision points on RIV/RIK. They will have to have additional discussions with AGDC and they will have to report back to the legislature on what they think their ability to provide income to the state is. Those revenues will be in a very detailed discussion.

11:53:51 AM

MR. WIGGIN added that they had all asked themselves the same questions. The organization chart illustrates a very good group of commercial analysts at DNR, along with commercial consultant from Black & Veatch who were on the prior version of the project. Along with DOR staff are working this issue together. Their commercial modelers have met and will be meeting continuously to make sure to understand the issues related to deductibility, etc. Part of Mr. Wright's presentation talks about things like modeling.

CHAIR GIESSEL asked him to elaborate on slide 12 that talks about risks and negative netback. Perhaps that draws in Senator Micciche's question. She was interested in number 3 that says the amount of state risk can be controlled by having a minimum price provision.

11:55:09 AM

STEVE WRIGHT, Consultant and Advisor, Department of Natural Resources (DNR), Anchorage, AK, answered they had been looking mechanisms for mitigating risk associated with the project. Slide 12 focuses on the opportunity and risk mitigation efforts that are currently under way. When the JDA team signed the agreement that really kicked off a new phase of the project for DNR of identifying potential buyers and investors to the project. However, the issue around risk exposure is one that DNR has been working on for many years. Under the old equity model, it was a significant effort by the commercial team and that has carried over now with the commercial analysts in the Division of Oil and Gas working with Black & Veatch. They have done the modeling which the commissioner and deputy commissioner both referenced. That information is on slide 10 and there isn't time to address it now.

Negative netback risk mechanisms to mitigate that risk are front and center on their priority list, Mr. Wright said. One is developing a gas supply agreement with AGDC that allows setting a minimum price provision. That would essentially set a floor that would ensure that DNR's revenue from royalty gas sales, and potentially TAG gas sales, would never fall below a minimum level. This would be a significant mechanism for mitigating negative netback risk. Another way of doing that is by electing RIV rather than RIK, because in that scenario the state can never receive zero or negative royalty value.

CHAIR GIESSEL said a zero netback is alarming and unacceptable.

MR. WRIGHT replied that their modeling will have a range of probabilistic outcomes on what that could entail if the department didn't have a minimum price provision in our contracts. They are focused on that aspect of the project and are looking to work with DOR and AGDC and their modeling efforts to ensure they are using similar assumptions, using ranges of uncertainty, in that quantitative modeling that assures that the range of outcomes are being fully captured.

CHAIR GIESSEL said that was interesting especially in light of the fact that AGDC talks about meeting the market's price, which is getting lower as the supply increases. She said this legislature has concern on behalf of the citizens of Alaska that they will actually get significant value from a very significant project. She remembered the workforce that appeared here during TAPS construction: the impact on schools and health care, etc. and wants to make sure all of that is mitigated and still come out cash ahead.

12:00:07 PM
CHAIR GIESSEL said they are at the end of their time and invited committee members to offer questions in writing; she had two. They have heard about more than 600 water body crossings and she wanted to know what his level of tolerance is for their impacts on fisheries. Some other projects have had a zero tolerance on fisheries. She had also asked DNR to comment on any potential legislation they might be collaborating on with the third floor related to this project in terms of increased authority or responsibility.

12:01:39 PM
CO-CHAIR TARR said Representative Millet had a question on the next milestones and their timelines.

12:02:20 PM
CHAIR GIESSEL thanked all of the departments and entities that presented today and adjourned the Joint Senate House Resources Committee meeting at 12:02 p.m.