

**ALASKA STATE LEGISLATURE
JOINT MEETING
SENATE RESOURCES STANDING COMMITTEE
SENATE FINANCE COMMITTEE**

January 25, 2018
9:01 a.m.

MEMBERS PRESENT

SENATE RESOURCES

Senator Cathy Giessel, Chair
Senator John Coghill, Vice Chair
Senator Natasha Von Imhof
Senator Bill Wielechowski
Senator Click Bishop

SENATE FINANCE

Senator Anna MacKinnon, Co-Chair
Senator Click Bishop, Vice Chair
Senator Peter Micciche
Senator Natasha Von Imhof
Senator Donald Olson
Senator Gary Stevens

MEMBERS ABSENT

SENATE RESOURCES

Senator Bert Stedman
Senator Kevin Meyer

SENATE FINANCE

Senator Lyman Hoffman, Co-Chair

OTHER LEGISLATORS PRESENT

Senator Shelley Hughes

COMMITTEE CALENDAR

UPDATE: ALASKA LNG PROJECT

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

KEITH MEYER, President
Alaska Gas Development Corporation (AGDC)
POSITION STATEMENT: Provided Update on AKLNG Project.

FRANK RICHARDS, Senior Vice President
Project Management
Alaska Gasline Development Corporation (AGDC)
POSITION STATEMENT: Provided Update on AKLNG Project.

ACTION NARRATIVE

[9:01:13 AM](#)

CHAIR CATHY GIESSEL called the joint meeting of the Senate Resources Standing Committee and the Senate Finance Committee to order at 9:01 a.m. Present at the call to order from the Senate Resources Committee were: Senators Bishop, Coghill, Von Imhof, Wielechowski, and Chair Giessel; from the Senate Finance Committee: Senators Bishop, Micciche, Olson, Von Imhof, Stevens, and Co-Chair Mackinnon.

Update: Alaska LNG Project

[9:02:27 AM](#)

CHAIR GIESSEL invited members from the Alaska Gas Development Corporation (AGDC) to the table to provide an update on the AKLNG Project.

[9:02:59 AM](#)

CO-CHAIR MACKINNON said that the legislature and the Finance Committee play a very important role in development of this project and the Senate Finance Committee is tasked with looking at the finances of the state including any debt the state has or is considering with regard to infrastructure and other investments. Collaboration with the legislature is necessary for a successful project, she stated.

KEITH MEYER, President, Alaska Gas Development Corporation (AGDC), said they would start the presentation with the numbers; they would also talk about the budget, the project cost, the economics of the overall system, and provide a commercial and a regulatory technical update.

[9:04:05 AM](#)

Capital Budget: (slide 3) Throughout 2017, AGDC implemented a significant austerity program trying to extend allocated funds as long as possible. As a result, the spend is \$24 million for the year versus a budget of \$55 million. There was a total expenditure for the year of \$33.6 million versus a budget of \$65 million including the operating component, allocated 60/40 ASAP/AKLONG.

[9:05:19 AM](#)

In FY18, (slide 4) AGDC will spend about \$5 million/month, which will bring total expenditures for January through June 2018 to \$67 million. They started the year with \$72 million and will end up at the end of June with \$41 million. Their intention is to have a lean burn rate and extend that through the end of FY19.

[9:06:07 AM](#)

CO-CHAIR MACKINNON said she wants to be clear: is AGDC spending half their budget because only half the year is done or spending 50 percent less in the January through December period.

MR. MEYER replied that they underspent last year as the result of a significant austerity program and they are underspending this year's budget, as well. The savings comes mostly from doing in-house contracting instead of outside contracting.

CO-CHAIR MACKINNON asked if it is 50 percent under, because that is what he is showing, but only six months of his year has lapsed.

MR. MEYER answered that January through December, 2017, their year-to-date actuals were \$24.7 million for capital expenditures versus a budget of \$55 million.

[9:08:07 AM](#)

CHAIR GIESSEL remarked that AGDC's capital expenditure for 2017 was \$33.5 million and that is what was spent for two months of work with three large company partners in pre-Front End Engineering and Design (FEED), but at that time the project was moving forward. It was hard for her to believe that he was spending so little and accomplishing so much.

[9:08:47 AM](#)

MR. MEYER responded that to him that recognizes a number of things: a significant amount of work was already done by the prior project team, and the biggest expenditure was funding it. When AGDC took over the project, a lot of the activities started to be done in-house. Their team had just come off the Alaska Stand Alone Project (ASAP) and were very capable. They took a 36,000-page brief and made it into a 100,000-page filing to the Federal Energy Regulatory Commission (FERC). A lot of the engineering work was done previously (\$600 million was spent on engineering and optimization). So, the work that was left - commercialization and funding activities - is different. Their intention is to move this project forward and de-risk it with as little use of outside contracting as they can and live within the allocated funding. Additional FEED work is still needed, and they could use more funding, but the project can be kept on track with their current schedule, which is to have a final investment decision (FID) at the front end of 2019 and begin construction at the back half of 2019 for an in-service date of 2024/25.

[9:11:29 AM](#)

CHAIR GIESSEL thanked him for his lengthy comments and noted that competence is expressed when expenditures are commensurate with that competence.

SENATOR WIELECHOWSKI asked how much the state is spending v. partners, meaning the Chinese government, the Vietnamese government, etc.

MR. MEYER answered that AGDC is 100 percent owner of the project and doesn't currently have partners. However, later this year, they may engage with partners both financial and strategic.

SENATOR WIELECHOWSKI asked what those "partners" are called and if they are spending any money on this project or if the State of Alaska is spending everything.

MR. MEYER replied that those governments are "customers" and typically customers don't fund a project. Funding comes with ownership and they haven't engaged in that relationship yet. However, funds are being expended by the customers as they spend thousands of hours in traveling here, in meetings, and in AGDC's data room.

He said that currently AGDC does not have the ability to receive funds from third parties. That is one of the things they are asking from the legislature this session.

SENATOR VON IMHOF said she looked ahead at slide 54 and it looks like the AKLNG Project is entering into FEED shortly. The previous FEED was going to require \$2 billion/year from each of the four partners and she was worried that AGDC is underestimating the amount of funding needed to get through 2019, especially with an incredibly reduced staff. How are they doing that?

MR. MEYER corrected that the estimate for FEED for the entire project was \$2 billion in total not per partner. And at some point in time the project will have to spend that. They are looking at a reduced expenditure to get a lump-sum, turn-key rollover into FEED, but that funding has yet to be raised and the expectation is that it will happen this calendar year. AGDC's inability to raise and receive those funds will cause delay in the project's schedule.

[9:16:58 AM](#)

SENATOR VON IMHOF asked if a finance director had been hired and if he will be in charge of raising money.

MR. MEYER replied that they are days away from engaging a large investment banker who would help with the funding. It is a firm not a staff person.

SENATOR MICCICHE said legislators had been following this project for so many years that they are getting hung up in the old arrangement, but they are catching up. Did he understand correctly that AGDC will not ask the legislature for any more funding but is hoping to bring along a partner that has a funding package with them at the next gate.

MR. MEYER said that was correct but reiterated that AGDC is asking for receipt authority to receive those funds.

CO-CHAIR MACKINNON asked if they are asking to move money over from ASAP so AGDC can use it for the AKLNG Project.

MR. MEYER replied he is asking for a re-allocation of \$12 million in ASAP funding to the AGDC, because those activities are winding down.

CO-CHAIR MACKINNON said that would be a conversation for another day.

9:20:02 AM

MR. MEYER said slide 5 indicates that no additional funds are requested for FY19 budget and again, he was asking for program receipt authority to receive money from third parties and to transfer funds from the ASAP to the AKLNG fund.

SENATOR MICCICHE said the legislature wants to be partners in this project in whatever form it takes and asked how he would feel if that receipt authority was compartmentalized as opposed to a blanket receipt authority, so that the legislature would have a vote in each phase of development.

MR. MEYER answered that it would be very detrimental. Before a third-party funding source will invest hundreds of millions of dollars, it will want to make sure the project will be completed. They will resist investing in a project that could get held up for a political reason or some other reason.

SENATOR MICCICHE said passing a blanket receipt authority to AGDC removes the legislature from any further approval and hands full authority to the administration for this project and asked if he saw a way for that review to occur other than the one-time passage of a bill that essentially relinquishes legislative authority to support or not support the project if they see a level of risk that is unacceptable for the state.

MR. MEYER replied that those risks can be addressed. He envisions a structure in which the state will always have the first option to invest, but if it didn't want to fund this project those partners that have invested hundreds of millions at that point would have the ability to go forward not using state funding. This project will have to be approved anyway, before that is finalized, and that would be a final check.

9:24:00 AM

SENATOR MICCICHE asked for a document explaining the stage gates, because for this project to be successful the legislature would have to be involved, and they want to understand where they have a formal say in that process.

CHAIR GIESSEL said the legislature actually had off ramps between each phase of the development in the previous project, and that was the project that this legislature agreed to. The legislature, as the board of directors for the State of Alaska

and as the ones with the appropriating authority, wants those off ramps for this project.

CO-CHAIR MACKINNON explained that the reason for having a separate fund for the ASAP was to backstop a big project failure and to be able to provide off-takes and gas to Alaskans at a particular price. Her concern with reallocating the \$12 million is that they are foregoing a backstop project. That last project also included an opportunity for Alaskans to partake in this project and she has seen nothing now that will allow that. Alaskans should have some way to participate in the project, like a check-off box on the Permanent Fund application.

MR. MEYER responded that work on the ASAP is concluding. That is the backup plan and it is alive and well. It is their intent to have a structure whereby Alaskans, municipalities, and Native corporations can invest in the project.

CHAIR GIESSEL followed up saying that Lazard, a legislative consultant, was engaged to comment on the investment possibility, but that was contingent on reports coming from the Department of Revenue (DOR) and Department of Natural Resources (DNR), whom they hadn't heard from in quite a while.

[9:28:40 AM](#)

SENATOR WIELECHOWSKI said the way he sees it, AGDC is asking to receive funds from potential partners and he wondered what they are expecting in return, and would the legislature be privy to the terms for receiving those funds and will that potentially expose the state to some future liability?

MR. MEYER answered the legislature will be privy to those terms. He explained that the state would be giving up some of its 100-percent ownership of the project, and it is a good infrastructure investment that links one of the world's largest stranded gas resources with the world's largest LNG market on a very long term stable basis. It will have a reasonable return that will be attractive to infrastructure investors (pension funds, insurance companies, pipeline companies, etc.). It will not be attractive to large oil majors, because it will not clear their hurdle rate.

SENATOR WIELECHOWSKI said he knows the Finance Committee will look at this much more closely, but he wants to make sure they aren't giving up too much ownership for small amounts of money.

CO-CHAIR MACKINNON said the state isn't really giving up ownership or the project will not receive a federal tax-exempt status of the same magnitude.

MR. MEYER responded to the extent the state sells ownership in the system, that share would lose the ability to have tax exempt financing, but the sale would bring in funds to the owners of the project. AGDC's tax-exempt status will largely be used to raise funding for its investment in the project, which they expect to be substantial at some point (their target is \$11 billion of equity), and it has the ability to issue tax-exempt bonds to raise that funding. They do not anticipate selling shares of AGDC. A project company would be established that would hold the pipeline and the LNG facility, and shares of that entity is what would be sold. Today AGDC owns 100 percent.

[9:33:03 AM](#)

CO-CHAIR MACKINNON asked if the tax-exempt bond authority has a cap.

MR. MEYER answered no.

CO-CHAIR MACKINNON asked for a legal opinion on how and in what quantity AGDC has for issuing bonds, because she assumed the financing market would look at what is backing the bonds.

MR. MEYER replied that he would use ownership in the system - the gas pipeline, the LNG plant, and the underlying commercial agreements that provide revenue for the services of that system - as backing.

CO-CHAIR MACKINNON added that financing would be ultimately backed by whoever purchases the gas supply.

MR. MEYER said that was correct.

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At ease

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CHAIR GIESSEL called the meeting back to order at 9:34.

MR. MEYER said slide 6 looks at 2018/19 funding needs of \$700 million for class 3 work. That is what they would be seeking from third-party sources. To be clear, they need the work product more than the funding, and some of that work product

could come from in-kind contributions. If any of that gets delayed, they risk slipping the schedule.

CHAIR GIESSEL asked him to explain a bit more about the in-kind contributions.

MR. MEYER replied that a funder that is also an engineering company might do that work product. However, they are currently looking for funding in the form of cash to pay an engineering company to do the work.

CHAIR GIESSEL asked if China has expressed an interest as they had indicated they have engineering capabilities in the Memorandum of Development (MOD). Is that what he is thinking about?

MR. MEYER replied that is one potential, but other large engineering companies take ownership interest in projects in exchange for work, depending on the project's ability to fund and their degree of confidence in the project.

CHAIR GIESSEL related that when the TransAlaska Pipeline System (TAPS) was built, Alaskans "were pretty riled up" about all the Lower "48ers" who came to work on it, and she couldn't imagine how they would feel about engineers from China.

[9:42:52 AM](#)

CO-CHAIR MACKINNON said the previous partners contributed around \$600 million to the project and asked if Alaska owes them a repayment. Do they still have some form of equity interest or in-kind interest going forward with those expenditures they made?

MR. MEYER replied that the state doesn't owe them anything. The state's obligation was to take over the project and move it forward using its funding capabilities and general ability to develop a project. Everyone will get a significant benefit from this project. They could, for instance, book reserves that are currently not called reserves. "And so, we have their support in developing this project down to a company, but no; we do not owe them for the work done."

CO-CHAIR MACKINNON asked if AGDC would not have to purchase any assets from those past partners.

MR. MEYER answered no, but AGDC has not acquired the land at Nikiski that is owned by an LLC formed by the producer

companies. That purchase would require funding, but they are considering a purchase option. So, it wouldn't be required immediately but rather once they took FID on the project.

CO-CHAIR MACKINNON asked if the land acquisition is included in his presentation figures.

MR. MEYER answered yes.

SENATOR VON IMHOF asked if they will approach the Permanent Fund (PF) at any point for investment or a financial contribution.

MR. MEYER replied he does not anticipate that. The state has the first option to invest and he didn't know where that would necessarily come from. He views this as an attractive investment and the Permanent Fund would have the same opportunity to invest as anyone else. In fact, he would encourage them to look at it, but he has no expectation that funding would come from that source in particular.

SENATOR VON IMHOF said in other words he won't actively pursue PF funding but will wait for its board to come to AGDC.

MR. MEYER replied that AGDC will actively pursue all third-party investors. To him the Permanent Fund would be a third-party investor. He didn't envision pursuing them in isolation nor potentially at all. They know enough about the project and ought to be interested enough to look at it. They are not thinking internally that is where the funding will come from.

[9:47:31 AM](#)

SENATOR STEVENS asked him to clarify that the state owns all engineering work and efforts of the past partners except for the land.

MR. MEYER said that was correct, except for the Nikiski land and a Department of Energy export license that is also held by the same LLC that owns the land.

[9:47:58 AM](#)

MR. MEYER said the project's top priority is gas to Alaskans and slides 7 and 8 broke down the economics. The pipeline in this project is more than twice the current demand of all of Alaska, 500 mcf/day, with pricing in the mid-single digits (\$5-6 mmbtu). One benefit of a gas pipeline, unlike a crude line, is that natural gas can be used right off the pipe to feed a community or a mining project. It could yield a potential savings of about

\$1,000 per household in the greater gas-consuming area of Alaska. That number is even greater in Fairbanks that would be displacing oil, but it does not reflect remote communities that might have to get LNG by truck, barge, or ISO container.

9:50:00 AM

CO-CHAIR MACKINNON remarked that the cost of a feeder line will not reduce the cost of rural generation for anchor tenants, like schools, that are funded by the state, and asked how he calculated the \$1000 for Southcentral households.

MR. MEYER replied that the estimate took natural gas consumption and estimated savings per mmbtu and divided that by the number of households. It's not necessarily the homeowner gas bill, but rather the homeowner's energy bill.

CHAIR GIESSEL asked if the number of takeoff points to communities in SB 138 - she thought it was four - had been increased.

MR. MEYER said when he stepped into the project, language said "up to five offtakes." Once AGDC stepped in, it said "at least five." He believes the more offtakes the better - unlike an oil line - and that this gas pipeline will be a trunk line from which branches will grow. It might be a bit of a struggle to get to five, but once the gasline comes in and people start to realize how close it is, all of a sudden projects (for instance, mining) will start to factor that into their numbers and there will be an interconnect. He said before the project was looked at as an LNG project with a pipeline and he is looking at it as a pipeline project with an LNG plant.

CHAIR GIESSEL said small communities can't support the cost of an offtake and asked who would pay for these offtake points.

MR. MEYER replied that should be a rolled-in cost to the system because it's much cheaper to do it that way, and it is a relatively minor cost in the scheme of the project. It's a valve and a meter station. It wouldn't be fair to have a small community bare the entire cost when spreading it across the entire system would be a relatively small burden.

CHAIR GIESSEL said the conversion of households from heating fuel to gas is another expense and asked if AGDC had included that in their calculations and if AGDC would fund that, as well.

MR. MEYER answered no; they are a wholesale supplier not a distributor and as such, they would supply the interconnection and laterals. Distribution companies will do the conversions.

[9:55:46 AM](#)

SENATOR BISHOP asked if parts of SB 138 are still in effect.

MR. MEYER replied yes; the entire thing is in effect.

SENATOR BISHOP said that SB 138 has a provision saying 20 percent of the gross revenues from the project goes into an energy fund to help finance some of the rural gas hookups.

MR. MEYER said he is correct.

[9:57:25 AM](#)

SENATOR VON IMHOF said wrapping these oftakes into the project costs might make the outside investors pause if their capital is going towards a good-will cause and won't necessarily yield a return, especially in this time of razor-thin margins.

MR. MEYER said no; why the state is doing this project will be an accepted part of the system. That's what he tells the potential partners: that's just the deal.

SENATOR VON IMHOF said she gets that but hopes enough investors accept that as part of the deal. Any sophisticated investors will want to see a line item accounting of how their money will be spent: commercial gas versus the communities' gas.

MR. MEYER responded that the cost of an interconnect is \$1 million if it is done while the line is under construction. So, even 10 of those is not a backbreaking number given the total cost of the system. A city like Fairbanks have very little gas now; it is a growth market. That has to be accepted.

[9:59:53 AM](#)

SENATOR MICCICHE asked how one sells 20 percent excess capacity for which there is currently no market and if that is a point of contention for investors at this point.

MR. MEYER replied that how it gets paid for is a future discussion. Right now, they are looking at the economics of the system being underpinned by the export market, and the instate market will be a future benefit that one could assign with a probability factor. If it has zero probability, then it is a

leaner return project, but if one believes there will be some instate growth, that is additional upside.

SENATOR MICCICHE asked if expansion is typical for future excess potential as opposed to existing excess capacity.

MR. MEYER answered yes, adding that this pipeline will use looping as a future upside.

[10:02:39 AM](#)

He said slide 9 compares the old cost structure with the new. The old structure had three producer partners and the state that was expected to contribute 25 percent of the capital. It would also get 25 percent capacity and be 25 percent owner of the system. Under the new structure, the state has 25 percent of the equity (75 percent of that is debt), the capacity allocation is 25 percent, and the ownership is 100 percent.

MR. MEYER said slide 10 broke down the cost estimates for the project: \$600 million was spent collectively over the last two and half years on engineering optimization and project management. The resulting procurement and construction estimate for the entire system (GTP, pipeline, and LNG facility) is \$27.9 billion. Owner's costs are on top of that, the top one being paying the project team that oversees the large contractors that are actually building it. The number used was \$3.4 billion (\$1 million/day for 9.5 years). In addition to that, FEED will cost \$764 million; insurance, staffing-up the operating organization and getting them all trained and ready to operate, start up costs, and others cost will cost a total of \$2.1 billion resulting in a total cost of \$6.2 billion (for the owner). Together, construction and owner's costs total \$34.1 billion.

SENATOR VON IMHOF asked how slide 10 arrives at \$27.9 billion for construction costs and he will break that down in terms of labor, materials, LNG plant, and offshoots. Does this include the local bridges and culverts that will have to be built throughout the system and who provided the estimate?

MR. MEYER answered this number is a result of the \$600 million work product performed by the previous team under ExxonMobil's leadership. It includes everything, even bridges and culverts. Some of the information drifts into confidentiality and he wasn't showing that slide.

CHAIR GIESSEL asked him to provide that slide to her and she would distribute it to members.

SENATOR VON IMHOF said she hopes this committee could also see the updated 2019/20 figures that will be blessed by the construction company that he selects.

MR. MEYER said yes.

SENATOR BISHOP asked if the \$6.2 billion on page 11 was just the cost to manage the project or did he envision including a company like Alyeska Pipeline in this number.

MR. MEYER replied that this cost includes staffing-up the operating organization and training them and goes through the construction phase.

CO-CHAIR MACKINNON said the state's partners were paying 75 percent of the \$600 million on the previous project and asked for the date that accumulated through and the total-in for the state up to now.

MR. MEYER replied that the \$600 million was spent by the team essentially through 2017.

CO-CHAIR MACKINNON said that explains some of her confusion on the first slide; he is using a calendar year (CY) to talk about things and she was used to looking at fiscal years (FY). She asked if he was using FY or CY for the 2017 spend of \$600 million.

[10:10:39 AM](#)

FRANK RICHARDS, Senior Vice President, Project Management, Alaska Gasline Development Corporation (AGDC), answered AGDC made its final payment of their portion - approximately one-quarter of that \$600 million - in January of 2017.

CO-CHAIR MACKINNON noted that AGDC's portion amounted to \$150 million and asked if that includes the TransCanada buyout and other iterations of this project and other small project costs.

MR. RICHARDS replied the \$600 million was the dollar amount to advance the AKLNG Project under the Joint Venture Agreement (JVA). The cost of the instate natural gas pipeline (ASAP) is separate from that. The cost of the payout to TransCanada was also separate.

CO-CHAIR MACKINNON wanted an all-in number.

MR. RICHARDS said he will provide the total spend for the committee.

[10:12:59 AM](#)

SENATOR COGHILL said slide 11 assumes that the state is the owner and asked if that \$6.2 billion is a bargained figure with potential buyers and if the state is supposed to carry that entirely.

MR. MEYER clarified that this estimate was developed under the previous structure and much of it would have been paid to the project manager. AGDC anticipates a new project manager (through the construction phase) and to the extent the state is an owner, it would have to come up with its share. At this point the state's share is 25 percent with 75 percent of that being debt.

SENATOR COGHILL asked if that would be true of the construction and the owner's costs.

MR. MEYER said yes.

SENATOR COGHILL asked if the 75 percent debt figure is \$34 billion.

MR. MEYER said yes but wait; we're not to the end, yet.

SENATOR COGHILL commented that there comes a point at which the state serves the lender and he wanted to know where that tipping point is.

[10:15:32 AM](#)

MR. MEYER said slide 12 explained that the major cost components were subject to a probabilistic simulation of potential risks that resulted in a potential downside exposure to the state of \$7.7 billion (specific variability by item is confidential) above the \$34 billion. With all that stuff going wrong, the project management team and owner's costs also increase by \$1.6 billion for a total contingency of \$9.3 billion over and above the construction cost estimate.

SENATOR BISHOP said he was glad he provided the risk contingency.

CO-CHAIR MACKINNON asked if the contingency costs would be financed ahead of time.

MR. MEYER answered that \$43.4 billion is the total number and equity and debt sources for the entire amount will be lined up with the understanding that the contingency might not materialize. They are really looking at commitments to fund an anticipated construction draw schedule and may find that all the contingency isn't needed.

CO-CHAIR MACKINNON asked if he is running into any federal arbitrage problems borrowing that much debt as a non-profit entity on a portion of the financing - because the borrower's money is going to be tied up and he will expect a rate of return on that \$9 billion that they hope won't be needed.

MR. MEYER responded that this will be a for-profit non-taxed entity. If they were to go to the current municipal bond market it would be strained, so he doesn't expect that it will all come from there. They would go to a large active project debt market for a syndicated project finance package for both the debt and equity side. Everyone expects some contingency to be in the number and it will be scrutinized.

[10:20:59 AM](#)

CO-CHAIR MACKINNON said she misspoke on nonprofit; it's a government entity that is borrowing money and when Senate Finance works with debt managers there is a rule of arbitrage for bonding. They are audited and if they are making money on money they are borrowing, there is a problem on the government side of the house. She assumed the state is proposing to borrow a large amount of money including the contingency, which is sitting on the borrower's side of the account. The contingency is a lot of money to be sitting on the sidelines and the state is getting charged interest if it is sitting there on its behalf.

MR. MEYER agreed that the contingency number is substantial and part of why he thinks the total number is a "comfortable number." With respect to the arbitrage rules, he does not anticipate borrowing money at a municipal bond rate and lend it to the project at a higher rate, which would fall into that category. They intend to use their tax-free municipal bonding authority to at least raise AGDC's portion of its equity and potentially more if they want less leverage on the project entity. Right now, they are looking at the project entity borrowing 75 percent of the total cost of the project, which would include this contingency, but not necessarily borrowing it in advance.

10:23:50 AM

SENATOR MICCICHE said he appreciates the 30 percent contingency as being a wise move. He mused that every overrun problem one can find has occurred in Australia and probably the most significant is the labor shortage that the Lower 48 is starting to experience, as well, in the oil and gas and pipeline sectors. He expects that could be a problem for this project, too. He asked what it would take for legislators to review the variables that went into the contingency number and to understand how much weight was placed on a potential labor shortage.

MR. MEYER replied that he would need a signed confidentiality agreement that just focuses on this and he encouraged everyone to do that.

SENATOR MICCICHE asked if he had a high degree of confidence in the labor estimate, specifically.

MR. MEYER answered yes; part of his confidence comes from the rigor that went into the development of the contingency diagram of major cost items.

CHAIR GIESSEL asked who did this contingency estimate.

MR. MEYER replied that it was led by the ExxonMobil management team.

MR. RICHARDS added that the contingency work was done through the project management team and it included inputs from all the partners following a process that was developed by ConocoPhillips in work efforts on other large projects that were going on at the time. It was vetted through subject matter experts of all those companies.

CHAIR GIESSEL asked if this kind of information ever needs to be updated.

MR. RICHARDS answered no; they go through a very similar analysis working towards defining the project more through advanced engineering.

SENATOR MICCICHE commented that the "save our salmon initiative" looms before them and the associated costs on a project of this size with this length of interaction with wetlands would be substantial. "Is that something that is baked into this or is that something that has to be updated if the initiative ends up being successful?"

MR. RICHARDS replied that the regulatory environment and the processes that any major project must go through were considerations and included in the contingency.

SENATOR MICCICHE asked Mr. Richards if he was saying the effects of the salmon initiative being successful are baked into a 30-percent contingency when every other project has been around 30 percent or higher in the last several years.

MR. RICHARDS replied he was not saying the salmon initiative, specifically, was incorporated into this contingency, but he was identifying that the environmental permitting risk was included. When this estimate was developed, the salmon initiative was not in effect.

MR. MEYER added that slide 13 is a summary of the total project cost of \$43.4 billion, and he was "reasonably" comfortable with it. Risks could happen like earthquake, war, and new regulations that are "tail risk events." All their numbers with respect to customers, financing, offerings, and pricing are all based around this \$43.4 billion figure.

[10:30:13 AM](#)

SENATOR COGHILL said he heard him say the FID will be coming up in a year or so and asked if he will use these numbers for the loan guarantees and project engineering description.

MR. MEYER replied that FID would happen in the front half of 2019. Before that decision is made, they need to get the estimate, contractors willing to provide a reasonable degree of risk around the estimate, lending and equity commitments, and customer commitments that underpin the revenues in order to start construction in the second half of 2019 and keep on that in-service target.

SENATOR COGHILL said he wanted to know the entanglement of the debt for the project that hasn't been fully described yet.

[10:31:49 AM](#)

MR. MEYER said AGDC engaged Fluor to develop a "zero-based estimate" of the project to identify where the potential savings may exist and to adjust for inflation since the original estimate. They identified a potential savings of about \$2 billion. And, AGDC has received informal inputs from a major contractor that they would perform the project management for significantly less than \$3.4 billion (used in the base

estimate). Those reductions are not reflected in their capital cost number that they will use to get financing and on which to base customer pricing.

[10:32:42 AM](#)

SENATOR VON IMHOF asked how much the Fluor contract was and what were the savings they found. She also wanted to know who the major contractor was who said they would manage the project for less.

MR. MEYER answered that the major contractor didn't want to be identified and it is an informal number; there is no commitment or agreement. The point of the bullet was to give some recognition that paying someone \$3.4 billion to manage large contractors for the project is a number that can probably be reduced. It is a "comfortable" number and doesn't include \$1.6 billion of contingencies thrown into the owner's cost. He added that AGDC will not manage this whole project; they will engage a large construction management firm.

CO-CHAIR MACKINNON said she wanted greater detail on Senator Von Imhof's question about a major contractor: was it an Alaska contractor or an out-of-state contractor, or an international contractor?

MR. MEYER replied that it was an out-of-state, U.S. contractor. Alaska does not have a contractor that could manage a project of this size.

[10:35:10 AM](#)

MR. RICHARDS also addressed Senator Von Imhof's questions saying AGDC engaged Fluor to conduct a zero-based execution similar to what other large major international oil companies are now doing as they review their internal processes of project development. They want to make sure and have an independent review of what he described as a belt, suspenders, Velcro, and duct tape approach to the components of the project: the gas treatment plant (GTP) execution, the pipeline and compressor station execution, and the LNG plant and marine terminal execution. The third portion of that effort is under way in Houston. This represents the outcome of the first two levels of review of the GTP and pipeline.

They also asked Fluor to do a strategic country sourcing review. ExxonMobil and the project management team had a sourcing strategy built and AGDC wanted to provide an update to make sure they could capture what may be cost savings due to economic

conditions with large oil and gas production and offshore developments and focused on four countries: US, Japan, Korea, China. The goal was to look at sourcing of materials and equipment that would be necessary for the project from raw materials all the way through to fabrication. They found some "good savings" available to the project that they would like to incorporate as they advance through FEED.

CHAIR GIESSEL reminded him that Senator Von Imhof had a question about the cost of the Fluor review.

MR. RICHARDS replied that the Fluor review cost about \$300,000.

SENATOR BISHOP said that Fluor is a very reputable contractor and had built all the pump stations in the TAPS, so they have Arctic experience. He would be nervous if someone offered to manage the project for less than \$3.4 billion because the lower bidder isn't always the best bidder.

SENATOR WIELECHOWSKI asked if AGDC is bound by any procurement rules or can it sole-source work to anyone they choose.

MR. RICHARDS answered that the legislation that created AGDC as well as the refinements in SB 138 granted them the ability to work outside of the State of Alaska procurement code. The normal process is to seek competitive bids, so they followed the intent of getting good quality for the work effort by doing due diligence and as Senator Bishop just said, working with those reputable companies that have shown they have the experience of developing, constructing, and working in the Arctic.

CHAIR GIESSEL underscored Senator Bishop's earlier comment that getting a bargain basement project manager is probably not a good idea when working in Arctic conditions on a green field project.

[10:40:18 AM](#)

MR. MEYER said slide 15 was about their capital structure of 75 percent debt and 25 percent equity. Using the total project cost of \$43.4 billion, that breaks down into a \$32 billion debt and \$11 billion equity requirement. Slide 16 had the operations and maintenance (O&M) number of \$850 million, which would increase to about \$900-plus by the time it goes into service. All those dollars stay within Alaska.

[10:41:22 AM](#)

CO-CHAIR MACKINNON asked where he got the inflation number, because it is lower than they have seen in places like the Permanent Fund Corporation.

MR. MEYER replied it is just a base assumption of 2 percent meant to mimic labor inflation, but it could be higher. They are using \$950 million for O&M.

CO-CHAIR MACKINNON pointed out that the Permanent Fund Corporation uses an inflation number of 2.25 percent. She asked who he thought would operate the pipeline.

MR. MEYER answered that they envision potentially an operating company being established to operate the system for a transition period. That team may be augmented by an outside operator similar to way the TAPS is set up. He did not envision handing it over to an outside company.

CO-CHAIR MACKINNON said so, the short answer would be an umbrella corporation or operator under AGDC.

MR. MEYER replied not necessarily under AGDC but under the project company. AGDC will be an owner of the project company and it will not be the operator of the system. That would be a separate operating group that would be charged with operating the entire system and its components.

CO-CHAIR MACKINNON said the first bullet shows \$365 million opex/capex for the LNG facility, but it excludes the marine tugs and the carrier-related costs and asked who he envisioned picking up those costs.

MR. MEYER replied those are typically a customer cost. AGDC would like to have discussions with some of the large customers about providing the shipping, but AGDC would not be a shipping company or own ships. They could be involved as a charter party, however, but that would be a cost pass-through. The customer picks up those downstream costs. This system ends at the jetty and the loading flange between the facility and the ship.

CO-CHAIR MACKINNON said that is an opportunity for an outside investor to take on and see an equity return.

MR. MEYER agreed that shipping is an opportunity.

[10:46:13 AM](#)

CO-CHAIR MACKINNON asked if the slide 17 graph compares with the timelines of the previous project.

MR. MEYER replied this is somewhat of an accelerated timeline but recognizing that some of the later timelines of the previous project did not have calendar years; it used year one, year two and year three that was triggered on an FID or FEED date. The current schedule uses calendar years and schedules that have the system in service in 2025/26/27/28 depending upon when FID is taken. So, this profile fits the previous plan, but its start date is a specific calendar year now as opposed to a year-one occurring after an FID event.

CO-CHAIR MACKINNON said three trains were originally anticipated in the Nikiski area and asked if all three trains come on line at once or have a phased approach and is that different than the previous project.

MR. MEYER replied this project assumes a simultaneous build of all three trains, but they come on line one year apart. Train one comes in service at third quarter 2024, train two in third quarter 2025, and train three in third quarter 2026. That is the original schedule, as well, and lines up with a number of critical path items, most notably the sealifts up North.

CO-CHAIR MACKINNON asked if that phasing is built into the financing so that Alaska starts taking gas when it starts to monetize Alaska's gas abroad.

MR. MEYER answered yes.

SENATOR VON IMHOF said she appreciated slide 17 depicting the draw level, because the next conversation they have is they know how much cash outlay is needed in each year. The next thing to obtain would be institutional investors who will "heavily evaluate" the risks versus reward of this project and compare it to other projects they could potentially invest in all over the world. She wanted to see his own risk/reward evaluation and how this project compares to others and why institutional investors will decide to come here in 2022/23 to the tune of \$9 billion. The legislature needs to know the likelihood of being able to attract those specific dollars and what returns they are expecting.

[10:50:49 AM](#)

CO-CHAIR MACKINNON said Alaska already has a GTP on the North Slope; it's just not state owned or operated. Is there a gas treatment facility up there now for injections?

MR. MEYER responded that there is a gas conditioning facility, but its main function is to separate gas from the oil and liquids and then push the gas back into ground at about 8 bcf/day, more than twice what this project needs. He thought it was the largest one in the world.

CO-CHAIR MACKINNON said she wondered if they could lease that plant on the North Slope to defer or extend out some of the investment up front.

MR. MEYER responded that unfortunately they are different functions. The main function of the AKLNG "AMINE" plant would be to remove CO2 from the gas because it solidifies when cryogenic and clogs up the pipe. They will take gas off the existing gas conditioning facility after the oil and liquids have been pulled out and before it gets injected into the ground, and then further treat that gas by removing CO2 and hydrogen sulfide.

CHAIR GIESSEL agreed with Senator Von Imhof that slide 17 is an important slide, but in a different way. It presents an accelerated timeline of a 2019 FID and the legislature has been taught many times that "speed kills when managing megaprojects."

Back on slide 14, the comment was made that Fluor's estimates were not done to a FEED level, and she wanted to know if the project is in FEED right now and if so, why weren't those estimates to FEED level? Some of the key requirements for a FEED decision, are the land in Nikiski that hasn't yet been procured, an export license that we don't have, and the financial advisor still has not been hired by AGDC to get a second opinion on all these numbers. She reminded members that when they cross the FID into construction, the project will be spending \$30 million a day.

SENATOR BISHOP asked if the GTP permitting is going according to schedule.

MR. RICHARDS answered they provided Federal Energy Regulatory Commission (FERC) an application for a section 3 permit in April 2017, and they have asked for additional data in preparation of a draft Environmental Impact Statement (EIS) and have yet to publish their schedule. The work is being concluded on the ASAP that uses the same sites for the GTP and the gas conditioning

facility as the AKLNG project. They have done the environmental review and the boring analysis and looked at the materials for filling. That is all going forward.

10:56:05 AM

MR. MEYER clarified that the GTP, the pipeline, and the LNG facility are all in the one application in front of FERC now. and that the start of the construction schedule is what they consider aggressive as opposed to the schedule itself. Slide 17 was about the construction draw schedule and slide 18 was about the debt draw schedule using an assumption of 20-year term at 5 percent interest. That results in a debt service payment of \$3.5 billion/year. Once they go into service, that includes some capitalized interest during construction.

The last bullet is a "debt for capacity" proposal where the customer helps secure the debt and that is what they have proposed to some of the larger Asian buyers. In that case, the cost of the debt and the term is passed through to the customer.

CO-CHAIR MACKINNON asked the average cost of debt for projects of similar size or similar industry worldwide.

MR. MEYER answered that 5 percent is on the high side of what other projects have been able to achieve; 3-5 percent is the range they are using.

CO-CHAIR MACKINNON asked if the slide should be modified to say 3-5 percent return, so they can try to anticipate something lower.

MR. MEYER said what they are trying to do now is develop numbers for their customer proposals that are all achievable and that is why they are staying with the \$43.4 billion. To the extent those numbers can be bettered, that will improve the equity return for the project. Right now, they are trying to balance customer, financial markets, operating a system, and an acceptable net back to the state. If they use "comfortable numbers" on all those, the eventual outcome will be achievable and potentially improved upon.

CO-CHAIR MACKINNON said she understands being conservative when speaking in front of the legislature. She has also watched China work inside of a market and if we have to take 5 percent for a variety of reasons, that is one thing, but to offer it up in a market that is not paying 5 percent on much right now is not putting Alaska in a good bargaining position.

11:00:27 AM

Her question is: in past projects, they were looking at financing in the U.S. and there was some federal backing of the debt. Had they done a comparison of working with U.S. bankers or are our eyes on the East and that is the partnership we want to go into - both because they need our supply and they want to earn a rate of return.

11:01:24 AM

MR. MEYER clarified that the debt financing will be a competitive process. They are going to engage an investment banker to help with it and make sure it is very competitive given the risks of the project. They are using a number that is achievable, but he doesn't call it an offer. To the extent the cost of the debt can be bettered, that improves the return on the equity for the equity owner, which the state intends to be a significant piece of.

MR. RICHARDS responded that he thought Senator MacKinnon was referring to some of the loan guarantee language that was in the Alaska Natural Gas Pipeline Act of 2004. At that time, the envisioned project was the overland route that would lead from Prudhoe Bay into Canada and ultimately to the American mid-west markets. That statute had loan guarantees by the U.S. government of \$18 billion. It had an inflation component, as well, that would equate to \$23 billion now. AGDC has been in conversations with the Alaska delegation about potentially working with them on including that language in the current project. Right now, that statute prohibits, because the project doesn't include an in-state-only LNG project. They have also had discussions with the U.S. Import/Export Bank, a financing entity that has previously provided low-cost funding to American projects overseas. They are very interested and want more follow-up in terms of the country (i.e. the U.S.) sourcing of equipment, materials, and labor. That was part of the impetus to have the Fluor study on best country sourcing done.

11:05:11 AM

CHAIR GIESSEL said they need to suspend this discussion on slide 18 as several members had other meetings pending. She adjourned the Joint Senate Resources and Finance Committee meeting at 11:05 a.m.