ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE
January 21, 2015
3:30 p.m.

MEMBERS PRESENT

Senator Cathy Giessel, Chair
Senator Mia Costello, Vice Chair
Senator John Coghill
Senator Peter Micciche
Senator Bert Stedman
Senator Bill Stoltze
Senator Bill Wielechowski

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Representative Andy Josephson
Senator Charlie Huggins
Representative Mike Chenault

COMMITTEE CALENDAR

Overview of the Alaska Gasline Development Corporation

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

DAN FAUSKE, President
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska
POSITION STATEMENT: Provided overview of AGDC activities.

FRANK RICHARDS, Vice President
Engineering and Program Development
Alaska Gasline Development Corporation (AGDC)
POSITION STATEMENT: Provided overview of AGDC activities on the ASAP and AKLNG projects.

JOE DUBLER, Vice President
Commercial Operations
Alaska Gasline Development Corporation (AGDC)
POSITION STATEMENT: Provided overview of AGDC activities on the ASAP and AKLNG projects.

DAVE HAUGEN, Senior Project Manager
Alaska Stand Alone Pipeline (ASAP) Project
Alaska Gasline Development Corporation (AGDC)
POSITION STATEMENT: Provided update on the ASAP project.

ACTION NARRATIVE

3:30:00 PM
CHAIR CATHY GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Costello, Micciche, Stedman, Coghill, Wielechowski, and Chair Giessel. Senator Stoltze joined the committee shortly after.

Overview of the Alaska Gasline Development Corporation

3:31:59 PM
CHAIR GIESSEL introduced committee members and support staff. She related that her goal for this committee is to craft policy and possibly remove some policy that will make Alaska an even more productive place to live for its citizens. She wanted to make sure our valuable assets - water, rocks, forests, tundra, and mountains - were used responsibly. There is an expectation of access and a responsibility to develop these resources, which allowed Alaska to become a state, and the committee is charged with continuing that legacy.

CHAIR GIESSEL welcomed Dan Fauske, President, Alaska Gasline Development Corporation (AGDC), to the table.

3:34:32 PM
DAN FAUSKE, President, Alaska Gasline Development Corporation (AGDC), Anchorage, Alaska, said many technicians, engineers, and senior staff put a lot of this work together and that he had worked together with a number of them on other projects. He said the AGDC is a public corporation in Alaska with a legal existence separate and independent of the state. It was created in AS 31.25.010. Its main objectives are to:

-develop a natural gas pipeline and an Alaska LNG project and other natural gas transportation projects in-state for the maximum benefit of Alaskans,
-finance, construct, and potentially operate natural gas and other non-oil, energy transportation systems,
-provide economic benefits and revenue to the state,
-assist Department of Natural Resources (DNR) and Department of Revenue (DOR) in maximizing the value of the state's royalty and taxed gas,
-hold the state's equity interest in the liquefaction component of the AKLNG Project (currently where most of their energy is going), and
-advance an in-state pipeline capable of delivering North Slope natural gas to Fairbanks, Southcentral, and other communities within the state at the lowest possible cost.

3:36:55 PM
AGDC's objectives are to:
-commercialize North Slope gas resource, secure a stable, affordable long-term energy supply for Alaskans,
-generate revenue, jobs and economic growth,
-facilitate further oil and gas development, and
-maximize the overall benefit to Alaskans.

MR. FAUSKE said Dave Haugen, Project Manager, Alaska Stand Alone Pipeline (ASAP), had done an outstanding job, but the rest of them are working on the AKLNG Project. They work on both sides of the projects. For instance, recently Mr. Richards, who was primarily doing the engineering oversight on the ASAP Project, is now working on the AKLNG side. One of the goals in hiring people was for them to be able to handle cross-over. They didn't want to develop a huge bureaucracy, because the idea is that there aren't going to be two pipelines. Their job now is to utilize the information and the work they have to try to fold everything into one project without duplication.

3:39:25 PM
FRANK RICHARDS, Vice President, Engineering and Program Development, Alaska Gasline Development Corporation (AGDC), said they are essentially the state's gasline pipeline corporation, and as such, have developed and brought on board a team of world-class experts to advance these projects. He would give them an overview of where the AKLNG and ASAP Projects stand and then identify what the teams have done and are doing to be able to work those projects.

He said the authorities under ASAP were granted in HB 4 that said to advance an in-state natural gas pipeline for energy relief for Alaskans, a key distinction between the two projects. The AKLNG Project is really about the commercialization of the North Slope resources for world-class markets and to provide for energy relief for Alaskans. AGDC also has the responsibility to help deliver some energy to communities off the road system either by rail or by barge or however else it can be used to transport it.

The project sponsor for ASAP is essentially the State of Alaska; 100 percent of the funding appropriated by the Alaska Legislature was placed into the In-State Natural Gas Pipeline Fund and has been used to advance the project to its current state, which is essentially completion of the class 3 work estimate. While the AKLNG Project is a combination of funding with private sponsors, major producers - ExxonMobil, BP, and ConocoPhillips, TransCanada (representing a portion of the project for the State), and AGDC representing the 25 percent ownership in the LNG plant, solely.

In regards to the design objectives, Mr. Richards explained, the AKLNG line is for an LNG export project, which means the gas has to be conditioned to a much lower level of CO_2 (approximately 50 ppm CO_2), while the ASAP has been designed as a lean gas concept, which would allow for up to 3 percent CO_2, which is essentially the Enstar spec. It goes from a gas conditioning facility located in Prudhoe Bay down to Southcentral tying into the Enstar Beluga pipeline, and then flow out to homes and power generation facilities.

The AKLNG project is a gas conditioning facility on the North Slope with a pipeline leading to an LNG export facility at Nikiski - essentially three mega-projects in one - whereas ASAP is a major gas conditioning facility, and then a pipeline leading to existing infrastructure.

3:42:33 PM
He said that the AKLNG Project is a 42-inch diameter high-pressure pipeline while ASAP is a 36-inch 1480 psi pipeline; very small differences in diameter, but the volumes are considerably different. ASAP was designed in accordance with what was then the AGIA statutes and the AGIA license agreement with TransCanada to be capped at 500 mcf/day.

3:43:21 PM

MR. RICHARDS said they had just completed a new estimate in December 2014 of approximately $10 billion for the ASAP, compared to the $45-65 billion for the AKLNG Project. The work forces are fairly similar, but the times to construct are different owing to the three-component aspect of the AKLNG Project. With the work they have done and the schedule delay they are now working towards, that means that ASAP won't be fully constructed until 2024. They didn't want it to compete with AKLNG, which will provide the most benefit for all Alaskans, while making sure that the work done on ASAP will be beneficial to AKLNG.

CHAIR GIESSEL asked if they had slowed down on the ASAP line so as to not compete.

MR. RICHARDS answered they had completed front end engineering and design (FEED) for the ASAP project, essentially 30 percent-plus design of the project, and are ready to take it out to the commercial market to see if there is interest. However, the AKLNG project is in pre-FEED stage and will hopefully make a determination to go into FEED early next year.

SENATOR MICCICHE emphasized that AGIA is no longer in existence and the reason for ASAP's progress is to be able to understand all the options available to Alaskans. He asked him to explain the expansion capacity potential of the 36-inch line.

MR. RICHARDS explained that the ASAP Project was designed with a single gas conditioning facility on the North Slope with the compressor station co-located within that facility. No intermediate compressor stations were needed to flow the 500 million standard cubic feet (MMscfd). Compressor stations could be added all along the line which could ultimately flow 1.6 Bcf/day if using the same design concept.

3:46:48 PM
CHAIR GIESSEL recognized that Representative Andy Josephson was in attendance since the beginning of the meeting.

MR. RICHARDS explained that essentially the Legislature gave them a mission: to advance the ASAP Project and with that they have been accumulating items that will benefit the state as an owner or a participant in the natural gas pipeline. For instance, with passage of HB 369, the state was told to work with AGDC and provide a state right-of-way. So, they have acquired 413 of state rights-of-way, which were granted

unconditionally that are all transferable to the project that will proceed forward.

In October of 2012 the final Environmental Impact Statement (EIS) for the design concept was completed for a 24-inch, high-pressure, 2500 psi rich (gas containing natural gas liquids that would have been able to be used for export as well as providing gas for the home heating and power generation for Alaskans) gasline. But at the end, the legislative mandate of easy and low cost access for Alaskans would have required "straddle plants" to remove natural gas liquids.

He explained that a straddle plant would cost the City of Fairbanks $250 million, and that is why they decided it is better to change the gas composition to meet the intent of the Legislature, which is easy access for Alaskans. That was planned in early 2016, which meant initiating a new National Environmental Protection Act action called a Supplemental Environmental Impact Statement (SEIS), which was initiated early this year. A new plan of development was created that are key documents required by the federal and state agencies. The EIS has gone through the first round of public scoping.

3:50:49 PM
MR. RICHARDS said they hit 16 communities up and down the state, and folks came out in support of the project. The additional environmental and engineering work getting done over the last few years includes looking at all the river and stream crossings, and looking at the mechanisms to be able to advance the pipeline through those areas. They have done cultural resource surveys up and down the project and have made determinations on high/low/medium-value wetlands and gotten a jurisdictional determination from the Army Corps of Engineers, all major steps need for any project that will be advanced.

MR. RICHARDS reported that AGDC had done a tremendous amount of bore holes as well. He explained that they knew the project from Prudhoe Bay to Cook Inlet would parallel the TransAlaska Pipeline System (TAPS) and that the work done by the producers in other iterations of large diameter natural gas pipelines was considerable. A wealth of information was available north of Livengood and, therefore, their efforts were focused on areas south of Livengood across the Minto Flats down through Denali National and State Park areas, and down to Cook Inlet. Those assets are part of what AGDC now holds for the State and with those assets they have been able to negotiate a trade with the AKLNG partners to be able to share information (theirs being

from Livengood north to Prudhoe Bay), thus saving the State tens of millions of dollars.

AGDC has also completed the air quality monitoring at the gas conditioning facility on the North Slope; that site is the same site that will be used for both the AKLNG or the ASAP Project. He said the strength-based design pipe must be able to withstand the rigors of discontinuous permafrost; it will have to stretch to be able to handle frost heave or frost settlement. The metallurgy had to be designed, which meant purchasing 12 segments of pipe from three manufacturers around the world - Germany, Japan, and India - because there weren't mills in the U.S. that could produce this high-strength pipe. That pipe is now being tested to make sure it will meet the design standards of these particular areas. Specifications for those areas of non-discontinuous permafrost were developed. They have also been working with the Federal Pipeline and Hazardous Material Safety Administration (FPHMSA) on pipeline regulations to make sure that the pipelines are built and operated safely.

He said most recently, they had completed a project execution plan, a very detailed document that identifies not only how they are going to continue to finish the design work for the pipeline, but how it will be constructed, and ultimately how it will be operated. This is a key asset for AKLNG Project as well, because of Mr. Haugen's previous expertise used in building the TransAlaska Pipeline System (TAPS).

MR. RICHARDS said they had built a very robust, graphical information system that represents everything put into place and completed the class 3 estimate that will clearly define what the level of cost will be for completing the project.

3:56:20 PM
CHAIR GIESSEL asked if it was true that the Park Service was hoping the pipeline would be built through Denali National Park, because they want access to this gas, too.

MR. RICHARDS answered yes, and explained that Senator Lisa Murkowski drafted a bill that was signed into law last year allowing for a high pressure natural gas pipeline to go through Denali National Park along the Parks Highway corridor. This was started prior to inception of AGDC as an organization by the original project developers, Enstar, because they thought access to the park was needed. Their concept was to build a pipe as close to or within the Department of Transportation and Public Facilities (DOTPF) and Alaska Railroad rights-of-way as

possible, but found that building within the DOTPF rights-of-way required more steel, because of safety considerations involved in being next to a transportation corridor.

Further, he said that if a project was built within Denali National Park, it must comply with another federal law, Alaska National Interest Lands Conservation Act (ANILCA). Title 11 in ANILCA requires that all federal authorizations must be applied for simultaneously. That is a problem, because one would apply for federal authorizations in a sequential timeframe for a project like this and be gathering information to meet those permit requirements as the project was developed. Bringing them all back to a single simultaneous application would delay advancement of the project. Provisions also say that any federal agency has the authority to essentially veto the project with only the possible exception being a presidential override.

SENATOR STOLTZE asked for a characterization of the fish habitat issues in his summary.

3:58:43 PM
MR. RICHARDS answered that fisheries experts have looked at all the 468 river and stream crossings, specifically the anadromous fish streams, because the crossing mechanisms must be considered when building it. That means that winter versus summer time construction must be considered. They now have an inventory of essential fish habitat.

SENATOR STOLTZE stated that the Mat-Su Borough has been the leader within the state on habitat restoration, especially with culverts.

4:00:47 PM
MR. RICHARDS said 55 percent of the land ownership is state land that has been granted to them through the right-of-way and almost 30 percent of it is federal. The outcome of the Supplemental Environmental Impact Statement will be a record decision, because with that granting will come the federal right-of-way across those federal lands. Hopefully, this asset will be completed by fall 2015.

4:01:33 PM
JOE DUBLER, Vice President, Commercial Operations, Alaska Gasline Development Corporation (AGDC), explained that the AKLNG Project is made up of basically four resource owners: the three main producers on the North Slope and the State of Alaska. The state royalty is about 12.5 percent, and it is considering

receiving the production tax as gas instead of in-value. Equal ownership with the producers assures alignment throughout the project. At this point, the State has approximately 25 percent interest in the project. That coincides with the percent of gas that the state would own through the tax as gas and royalty in kind.

He explained that the State's interest is currently represented by TransCanada in what is called the Mid-stream, which includes two major projects: the gas treatment plant and the pipeline. AGDC is the state's corporation and it would own 25 percent of the LNG facility and marine terminal at Nikiski. It's important to keep this continuity throughout the project.

4:04:16 PM
MR. RICHARDS explained that they have been directed by both the Legislature and the prior administration to not spend the state's money twice. So, the two projects signed a cooperation agreement in October 2014, which resulted in the first exchange of geotechnical data in which historic TAPS information - bore hole information, work from the Alaska Pipeline Project, and the Denali Pipeline Project (north Livengood) - were granted to AGDC, and AGDC was able to share the bore hole information from Livengood south with the AKLNG Project. That met the intent of working collaboratively together and eliminating duplication of work between the two projects.

AKLNG had not brought folks on as timely as they had hoped but AGDC has in many instances. It has technical consultants and the authority granted by the Legislature for expedited permit review. So, this month they are working cooperatively on both projects under the auspices of AGDC; this will ultimately save tens of millions of dollars in terms of project cost development. He reported that civil work is proceeding forward and that hydrologic, fisheries, and metallurgic work is also being shared between projects. He said they are also working with TransCanada and the producers on the pipeline and gas treatment facility.

4:07:10 PM
MR. DUBLER related that the AGDC board approved $39.8 million for calendar year 2015 for work on the AKLNG Project. This includes both the capital contributions in the form of cash calls, staff time, and consultants. They have held a joint workshop with AGDC on sharing data and engineering and have already exchanged some historical data; they are coordinating future activities for next year's field season.

He said they are particularly proud that 79 percent of the 250-person work force hired for the AKLNG 2014 field season are Alaskans. The project is actively soliciting additional Alaskan content through a list on its website where contractors can enter their names for future bidding.

4:09:18 PM
MR. DUBLER said that engineering contracts have been awarded to United Research Services (URS), based out of San Francisco, to do design work for the North Slope gas treatment plant. They are also getting help from Chicago Bridge and Iron (CBI) based in Houston, and Arctic Slope Regional Corporation Energy Services (AES), based in Alaska. That work is being done in Denver. The pipeline is being designed by Worley Parsons in Calgary, Canada. The LNG plant is being designed by CBI (with Chiyoda (Yokahama) and AES) in Houston. Marine facilities - Nikiski jetties and docks - are being designed by CH2M Hill in Houston and Anchorage. The subcontractors (subs) these people hire are looking for Alaskan content, as well.

4:11:15 PM
He said the Department of Energy (DOE) authorized LNG exports to free trade countries several months ago, and the Federal Energy Regulatory Commission (FERC) approved a pre-filing request in September allowing the FERC employees to start working with the project for a filing at some later date. The project has already filed resource reports 1 and 10 for the EIS and are working on the others for a total of 11 reports. The reports are on the FERC website. They have conducted over 60 public meetings up and down the alignment from Nikiski to the North Slope and did a media tour through the Nikiski site on October 9.

CHAIR GIESSEL said report number 5 is the socio-economic impact, which is how it will impact Alaskans and asked when the rest of the reports will be out.

4:13:02 PM
MR. DUBLER answered soon.

4:13:29 PM
MR. RICHARDS said initial drafts will go to the Federal Energy Regulatory Commission (FERC) in February and go through a public process; then another set of drafts will be done in 2015, allowing multiple opportunities for comment.

4:14:10 PM

DAVE HAUGEN, Senior Project Manager, ASAP Project, explained that the class 3 estimate was prepared and delivered to the board prior to the end of the year. Earlier estimates were a combination of class 4 numbers; these are accuracy terms that deal with just how rigorous the estimating work is done. Some of the 2012 estimating work for the pipeline portion of the project had progressed further than for the gas conditioning facility at Prudhoe Bay and some "factored estimates" used best available knowledge.

The current estimate reflects a full class 3 re-estimate for both the gas conditioning facility and the pipeline. On the pipeline portion of the project, civil estimates were done by Peter Keywood, the Bryce Company out of Fairbanks, and Alaska Frontier Constructors as if they were actually bidding the work. Similarly, on the pipeline portion of it: Doyon Associated, Price Gregory, the Michaels Corporation, and Rockford Corporation. Because of that, the class 3 estimate is much more accurate than the class 4. The class 3 estimate will progress to a class 2 estimate, which provides a reasonable degree of certainty that the project will actually come in on budget, before the sanctioning of the project.

4:18:44 PM
In addition to the total install cost number of just under $10 billion, further calculations were done on operations and maintenance (O&M), again using real world expertise of people from Alyeska Pipeline. It was found that the 2012 estimate, as a factored estimate, wasn't far off the mark.

The thing not estimated before was dismantlement, restoration, and recovery (DRR): end of life costs that are part of the project. The gas pipeline project would require removal of all the facilities like the gas conditioning facility, intermediate compressors stations, the above ground part of the project, will have to be taken away and the sites restored. The pipe itself will probably be purged and capped and left in place. Those costs will come at the end of the project and doesn't amount to much in today's dollars; but it does get incorporated into the tariff rates.

Finally, Mr. Haugen said, the State of Alaska's money, the $353 million, is in the capital cost estimate for the project. He noted that almost one-third of the cost of the project is on the North Slope, because the gas needs lots of conditioning to make it usable.

4:22:05 PM
MR. RICHARDS noted that these numbers are represented in thousands of millions, so they are talking about billions of dollars.

4:22:29 PM
SENATOR STEDMAN said several years ago, some members attended a mega project seminar that classified a mega-project as over $1 billion; a vast majority of them go over-budget and very few under. Going over budget by 20 percent is considered a success. In this case, if you think it's going to cost $10 billion and it costs $12 billion, that's considered a success. He asked how policy makers factor in large over-budget figures.

MR. HAUGEN responded that they are very cognizant of that effort. In fact, the independent project analysis (IPA) is their bible as well as using the stage gate methodology. They are still in phase 2 of front end engineering and design (FEED). The whole idea is that every time you do another estimate, you try to get the numbers even tighter. However, it doesn't account for elements out of their control like inflation, the future costs of the major components, the steel or major equipment; those are world market type activities.

4:25:05 PM
He said if one of these projects does get developed, it will be up against other market conditions, which can also cause the project to go over budget.

In some cases, the regulatory environment is still dependent upon a reasonable amount of oversight, but it can't be controlled. The new Federal Pipeline Hazardous Materials and Safety Organization has a mandate from Congress to be very specific about regulations on the pipeline itself, and he doesn't have a good feel for what that oversight will end up costing the project.

4:27:04 PM
SENATOR MICCICHE asked him to explain the spectrum in their cost analysis.

MR. RICHARDS explained that they used a P-75 risk-based Monte Carlo analysis for the nearly 8,000 line items in the estimate. A P-85 would be a higher contingency level and P-50 would be lower.

SENATOR WIELECHOWSKI shared Senator Stedman's concern with costs going up in the course of a year and asked what the plan is for paying the costs that are over-budget.

MR. DUBLER answered that the tariff could be adjusted; typically the shipper, which would be Enstar, that is purchasing the gas on the other end, would take some of the risk and the pipeline company could take some of it; it would be a negotiation. A higher number like P-90 would give them more comfort that the numbers are a little harder than a P-75 would be.

4:30:36 PM
CHAIR GIESSEL recognized Representative Chenault and Senator Huggins in the audience.

SENATOR STOLTZE asked them to comment on the cost of wetland permits and mitigation as budget cuts are discussed. He asked if it would be worthwhile for the State to invest in primacy.

MR. RICHARDS answered in regards to wetlands mitigation, this means that the wetlands (high, medium or low value) the federal government identified as having a national interest should have a monetary mitigation paid for by the project sponsors. In Alaska, those costs are going up quite high and their 10,000 acres of wetlands impact that would cost about $200 million for mitigation. The large program office within DNR that has the responsibility for shepherding large projects suggested using land banks instead of paying for mitigation, which would save literally hundreds of millions of dollars, and he hoped to have those discussions this year in the legislative process. The cost of mitigation for any large project is becoming a major factor.

SENATOR STOLTZE asked if primacy affects the state at all.

MR. RICHARDS answered that he was not an expert on primacy, but that Mr. Ruaro in Senator Stedman's office had been working on that issue.

4:34:58 PM
SENATOR MICCICHE asked where folks are now in terms of a level of confidence for a final investment decision (FID).

MR. HAUGEN answered that getting to an FID will in most cases require a class 2 estimate - within a range of plus or minus 10 percent - which would be what shippers would look to as being a reasonable amount of variation that they would feel comfortable enough to tender their gas subject to their negotiations for the

risk-sharing element, because that will still be part of the tariff negotiations.

SENATOR MICCICHE asked if he was involved in the construction of TAPS and if a P-90 of building a trans-Alaska pipeline in 2019 will be more accurate than a P-90 in the late 70s.

MR. HAUGEN replied he was on the Alyeska Project at the beginning and its original concept at the 1968 discovery well was a buried pipeline and the estimate was based on a conventionally buried oil pipeline. Nothing was known at that time about the technology required to actually be able to get a hot oil pipeline across permafrost areas. So when construction actually began there was a completely new design and over half of the project had to be an elevated pipeline. Along with that was that it was the first major project built after the National Environmental Protection Agency (NEPA) was instituted, and no one knew of the implications that would call into play. That is why it went from an estimated $800 million to $8 billion for actual construction. Any time designs change, he said, design premises change, and other change conditions occur, re-estimates need to be redone, and carefully, because the history of major projects is not a good record.

4:39:43 PM
CHAIR GIESSEL remarked that the lead folks on the AKLNG Project actually brought a project on line, on budget, and on time, which is encouraging.

4:40:29 PM
MR. DUBLER said that MMBtu stands for thousands of British thermal units, a measure of energy it takes to raise the temperature of one pound of water (about a pint) by one degree. MMscfd stands for millions of standard cubic feet per day. So, the 2014 tariff rate in Fairbanks is $5.50-6.75. The range is used, because the cost of gas is unknown until an open season is held and they can find out what people are willing to sell gas for. The tariff passes through the project and gets paid by the end users.

The local distribution costs in Anchorage run about $1.50 for Enstar and $4.00 in Fairbanks, because IGU has to build out the whole system. That is why the burner tip cost is about $11.50-14.00 and currently they are paying around $21. So, this would be a substantial reduction. The tariff rate to Anchorage, because of the longer distance, would be $8.00-9.75, which is a burner tip cost of $11.50-14.50, a little bit more than now, the

issue being certainty of supply. The North Slope has certainty, but in Cook Inlet it depends on who you believe.

MR. RICHARDS said 2014 numbers include the O&M costs, the DRR, a 20-year depreciation, and the cost of capital. In 2012 they used a 30-year depreciation life and the cost of capital is higher now. So, they feel these are conservative numbers.

4:43:24 PM
SENATOR WIELECHOWSKI asked him to explain the range for burner tip costs.

MR. DUBLER answered that the tariff is in the range of $11.50-14.00, and if it is $5.50, the $6.00 difference between those is the $4.00 local distribution for Fairbanks and the $2.00 cost of gas. The range on the cost of gas is $2.00-3.30. So, the range on the upper side is $7.30, which is the $3.30 and the $4.00. They quote a range, because saying it's going to cost a certain number implies a level of accuracy that just doesn't exist now.

SENATOR WIELECHOWSKI asked if he was assuming the cost could be off by 20 percent.

MR. DUBLER answered that part of the estimate allowed for the actual construction cost factor and then the cost of gas.

SENATOR STEDMAN asked what capital structure they are considering.

MR. DUBLER answered they are considering a debt/equity ratio of 70/30.

SENATOR STEDMAN asked how sensitive these figures are if the state decides to put more money into the project.

4:46:25 PM
MR. DUBLER answered that equity is the higher cost of the two different cost of funds. Equity is assumed to cost 12 percent and debt 5.7 percent. This is because equity investors typically require a higher return than a bond holder. If the state were to just contribute money, say the $400 million it put in up front, for every billion dollars that would reduce the tariff by about $.50.

SENATOR STEDMAN said equity infusion is one of the ways the State has the ability to get cheaper gas to Alaskans.

SENATOR WIELECHOWSKI asked if the 70/30 split assumes the state will contribute 30 percent from the general fund and the 70 percent will be bonded.

MR. DUBLER answered that the only state contribution is the $353 million. The 30 percent equity is assumed to be contributed by an owner/builder/operator who would get the 12 percent return.

4:48:05 PM
SENATOR STOLTZE asked if they were factoring in potential conversions of the military installation at Ft. Wainwright and the possible reopening of Flint Hills in the tariff projections.

MR. DUBLER answered no. The tariffs were calculated as if a pipeline company was building it. If Enstar brings gas to a subdivision, they don't pay to convert folks' oil-fired stove to a gas stove.

SENATOR STOLTZE said he was thinking about the demand.

MR. DUBLER said they are currently looking at business developments and what communities could be hooked up to this project up and down the line.

SENATOR STOLTZE commented that people are probably non-committal when they don't see a gasline.

MR. DUBLER admitted that was an issue.

4:50:22 PM
SENATOR STEDMAN asked why there isn't a gasline company pounding the table to build this project with just the 12 percent return on equity without a substantial state equity infusion?

MR. DUBLER answered that is why the state is putting $400 million in at the beginning, because they believe a company will put their capital up and build it once the numbers are seen. They have been talking with an owner/builder/operator that is very interested in building this project.

SENATOR STEDMAN said the reason he brought it up is because it was one of the backstop arguments of the original bill that got this ball rolling. The state is trying to stimulate this project, because we couldn't get a gasline company to come in and put that down to find out if the project is feasible or not.

4:52:58 PM

MR. RICHARDS said slide 14 provided a history of why the ASAP project was designed to a 500 MMscfd throughput. It was really due to the Alaska Gasline Inducement Act (AGIA) and the AGIA statutes (2008) that limit any competing in-state natural gas pipeline to less than 500 MMscfd. Termination of the AGIA license in June 2014 made the cap go away. The work that was under way was far enough along that they weren't going to change design parameters and it was completed in December 2014. They are no longer statutorily constrained to 500 MMscfd, and the project size can be changed with changes in compression, pipe strength, and treatment capacity.

4:53:57 PM
SENATOR WIELECHOWSKI asked what sort of interest they are getting, because 500 MMcsfd makes the tariff extremely high.

4:54:18 PM
MR. DUBLER replied that the only real solicitation they had done was a non-binding expression of interest in 2011, and they got 500 MMscfd, which happened to coincide with the line, which at least gave them confidence to continue forward with that number. They haven't gone out again with tariff numbers or tried to project tariffs at higher volumes because they don't have the engineering to back it up. To the extent they will do an open season in the future they would have indicative tariffs at the higher volumes to see if it brought in additional interest.

4:55:19 PM
MR. RICHARDS continued saying that slide 15 represents the spend plan through sanction for a $353 million project; $149 million of that is left. With passage of SB 138 and signing of the joint venture agreement, AGDC saw that the AKLNG Project was going to be the state's priority and that any work being done for the ASAP Project should be done to keep the project viable and durable so that it could potentially be transferable as a state asset to the AKLNG Project. They saw ASAP wasn't going to open season in the near term, really until the AKLNG Project decides on whether or not to proceed into FEED, a decision that is slated for the first quarter of 2016. So, the spend plans were revised down. Deciding to proceed or not with the AKLNG Project will be a watershed moment for the ASAP project. Should AKLNG proceed into FEED, then the ASAP Project would fall back; if the decision is to not proceed, then the assets of the ASAP Project would advance.

SENATOR COGHILL asked what projects ASAP would be dealing with in the 2015-16 timeframe.

MR. RICHARDS replied that they will complete the SEIS, which would result in a federal right-of-way grant to AGDC; they will continue the metallurgy work for the 36-inch, 1,480 psi pipeline to be able to make sure the pipe will be able to withstand the rigors, continue the work efforts for the FPHMSA to better understand their requirements for the execution of the project as well as its operations, and they would look at optimizing the gas conditioning plant and reducing its cost. They will also look at long lead-time items for their construction, maintenance and inspection programs to shave off months if not years of pre-development work.

SENATOR COGHILL remarked that the $60 million would get them there, but the $149 million would have gotten them to an open season.

MR. RICHARDS added that they would have gone to an open season and then made modifications based on what the shipper requirements were, and then gone to a final investment decision.

4:59:40 PM
MR. RICHARDS said the revised schedule aligns the ASAP Project to the AKLNG FEED decision timeframe. If the AKLNG Project were not to proceed, they would look to their commercial interest by defining optimal throughput for this project, enter into a redesign, and then start the regulatory process with the Regulatory Commission of Alaska (RCA) for a recourse tariff and go to an open season and ultimately project sanction with first gas, now, being in third quarter of 2024 (three years later than the original timeframe).

The work identified as non-discretionary work was included in the work package presented to the Office of Management and Budget in the regards to AO 271.

5:01:15 PM
MR. FAUSKE, continued that the corporate focus near-term 2016 was to accelerate cooperation, maximize state resources, eliminate duplication of efforts, and align work efforts and routing. With the alignment of the dual projects, one wouldn't have a recourse tariff filing and no open season, because no one would bid on it while they have another project in the works. But if the AKLNG Project is successful, the State will end up with a much better project in terms of revenues.

He said yesterday ExxonMobil announced anticipation of a $25 billion spend on the British Columbia Project, which he thought indicated some aggressiveness in world markets. Alaska, also, represents a huge resource for them and the other companies, so he remains hopeful. The work has been an "absolutely honest effort" and a lot of money is being spent to move the project. He said a valuable asset was added when Fritz Kruzen moved back to Alaska and who was a global lead on LNG with ConocoPhillips for 36 years. In the future they will probably assign people outside rather than fly people back and forth all the time if they are going to be primarily involved in engineering work at either Calgary, Denver, or Houston.

5:04:24 PM
He said they want to progress both initiatives to better inform the State's ultimate policy and investment decision making and maintain the State's leverage for building assets that it can bring to either project. He noted that their estimate was staying within the range considering that inflation is about $250 million per year and that time is not necessarily a friend unless market conditions change to the point that it's moving in the right direction.

He explained that their two benchmarks are: can we beat or equal the price of imported LNG and keeping the Fairbanks tariff within a certain range considering it was originally factored using about 16 MMscfd, but they are currently at 20-25 MMscfd. Alaskans use 250 MMscfd of gas on the Railbelt and they want to expand that on a worst day. That means selling 250 MMcfd of gas and he wasn't' sure the tariff even for 500 MMscfd was competitive, and the only way to compensate for that is to increase volumes. He wasn't advocating that, but pointing out there is also a sweet spot that must be met. He said the ASAP Project is still very viable as a fallback position and that the $25 million worth of work that has been done on the other project will also benefit this one.

5:06:57 PM
He said one of the greatest things that ASAP brings to the table is the leverage that shows the state does have options and stated "The cost of doing nothing gets pretty expensive, too."

MR. FAUSKE said SB 138 also directs collection and compiling of existing gas demand data to be done showing the potential of new users/communities, modeling of realistic demand scenarios/estimates, as well as estimating usage and cost of

service, variations in usage/storage requirements, and identifying the best delivery mechanism.

5:10:15 PM
SB 138 also directs them (under the AKLNG Project) to figure out where the flanges for off-takes on the pipe will go, design the equipment, develop detailed cost estimates for the equipment, and to coordinate with the Alaska Energy Authority (AEA), the Alaska Industrial Development and Export Authority (AIDEA), and DNR regarding policy and infrastructure issues associated with increasing in-state gas access.

5:10:56 PM
MR. DUBLER said the AKLNG Project is fully funded now through the FEED stage; $69.8 million was appropriated last year and that will be spent through FY16.

MR. RICHARDS explained that two funds were set up for AGDC to administer the projects: the AKLNG Project Fund and the other for the in-state project, ASAP. The Legislature has appropriated approximately $119 million to AGDC for advancement of the ASAP Project; $120 million had been expended through FY14 and an additional $98 million will be spent through the end of FY15. A majority of that goes towards the class 3 estimate and the engineering deliverables they talked about earlier. In FY16 an additional $51 million will be spent leaving a balance of $150 million to be used for advancement of the natural gas pipeline project.

5:12:56 PM
SENATOR STOLTZE said the governor put a freeze on this project and asked him to describe that impact.

MR. FAUSKE replied that AO 271 made them make a decision on discretionary versus non-discretionary spending, and they had already started that process months ago as they were aligning to the AKLNG schedule (the route is 98 percent aligned). The AO also said to "continue working until further notice." They were not told to "cease and desist." He felt the $60 million spend drop, by $90 million, was certainly in compliance with that order. Their spend plan had been submitted and they are now waiting to hear some definitive answers.

He also said they went through a Request For Proposal (RFP) process and selected Enbridge as the owner/builder/operator. According to HB 4 it was always designed for an owner/builder/operator to come in. With passage of SB 138, they

have had lots of meetings with Enbridge and others who were interested in the project, but he felt it was unfair to have them spend the money at the time.

5:18:11 PM
CHAIR GIESSEL found no further questions and thanked them for the briefing. She adjourned the Senate Resources Committee meeting at 5:18 p.m.