ALASKA STATE LEGISLATURE
JOINT MEETING
HOUSE RULES STANDING COMMITTEE
SENATE SPECIAL COMMITTEE ON ENERGY
Fairbanks, Alaska
June 12, 2008
10:16 a.m.

MEMBERS PRESENT

HOUSE RULES

Representative John Coghill, Chair
Representative John Harris (AGIA Subcommittee, Chair)
Representative Anna Fairclough
Representative Craig Johnson
Representative Ralph Samuels (AGIA Subcommittee)
Representative Beth Kerttula (AGIA Subcommittee)
Representative David Guttenberg

SENATE SPECIAL COMMITTEE ON ENERGY

Senator Charlie Huggins, Chair
Senator Bert Stedman, Vice Chair
Senator Kim Elton
Senator Lyda Green
Senator Lyman Hoffman
Senator Lesil McGuire
Senator Donald Olson
Senator Gary Stevens
Senator Joe Thomas
Senator Bill Wielechowski
Senator Fred Dyson
Senator Thomas Wagoner

MEMBERS ABSENT

HOUSE RULES

All members present

SENATE SPECIAL COMMITTEE ON ENERGY

Senator Lyda Green
Senator Gary Stevens
Senator Fred Dyson

OTHER LEGISLATORS PRESENT

House

Representative Chenault
Representative Crawford
Representative Doogan
Representative Edgmon
Representative Gardner
Representative Hawker
Representative Holmes
Representative Joule
Representative Kawasaki
Representative Kelly
Representative Neuman
Representative Olson
Representative Ramras
Representative Roses
Representative Stoltze
Representative Wilson

Senate

Senator French
Senator Therriault
Senator Wilken

COMMITTEE CALENDAR

HOUSE BILL NO. 3001
"An Act approving issuance of a license by the commissioner of revenue and the commissioner of natural resources to TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd., jointly as licensee, under the Alaska Gasline Inducement Act; and providing for an effective date."

- HEARD AND HELD

SENATE BILL NO. 3001
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- HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: HB3001
SHORT TITLE: APPROVING AGIA LICENSE
SPONSOR(s): RULES BY REQUEST OF THE GOVERNOR

06/03/08	(H)	READ THE FIRST TIME - REFERRALS
06/03/08	(H)	RLS
06/03/08	(H)	WRITTEN FINDINGS & DETERMINATION
06/04/08	(H)	RLS AT 9:00 AM CAPITOL 120
06/04/08	(H)	Heard & Held; Assigned to Subcommittee
06/04/08	(H)	MINUTE(RLS)
06/04/08	(H)	RLS AT 10:00 AM TERRY MILLER GYM
06/04/08	(H)	Heard & Held
06/04/08	(H)	MINUTE(RLS)
06/05/08	(H)	RLS AT 9:00 AM TERRY MILLER GYM
06/05/08	(H)	Heard & Held
06/05/08	(H)	MINUTE(RLS)
06/06/08	(H)	RLS AT 10:00 AM TERRY MILLER GYM
06/06/08	(H)	Heard & Held
06/06/08	(H)	MINUTE(RLS)
06/07/08	(H)	RLS AT 10:00 AM TERRY MILLER GYM
06/07/08	(H)	Heard & Held
06/07/08	(H)	MINUTE(RLS)
06/08/08	(H)	RLS AT 1:00 PM TERRY MILLER GYM
06/08/08	(H)	Heard & Held
06/08/08	(H)	MINUTE(RLS)
06/09/08	(H)	RLS AT 10:00 AM TERRY MILLER GYM
06/09/08	(H)	Heard & Held
06/09/08	(H)	MINUTE(RLS)
06/10/08	(H)	RLS AT 10:00 AM TERRY MILLER GYM
06/10/08	(H)	Heard & Held
06/10/08	(H)	MINUTE(RLS)
06/12/08	(H)	RLS AT 10:00 AM FBX CARLSON CENTER

BILL: SB3001
SHORT TITLE: APPROVING AGIA LICENSE
SPONSOR(s): RULES BY REQUEST OF THE GOVERNOR

06/03/08	(S)	READ THE FIRST TIME - REFERRALS
06/03/08	(S)	ENR
06/03/08	(S)	REPORT ON FINDINGS AND DETERMINATION
06/04/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
06/04/08	(S)	Heard & Held
06/04/08	(S)	MINUTE(ENR)
06/05/08	(S)	ENR AT 9:00 AM TERRY MILLER GYM
06/05/08	(S)	Heard & Held

06/05/08	(S)	MINUTE(ENR)
06/06/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
06/06/08	(S)	Heard & Held
06/06/08	(S)	MINUTE(ENR)
06/07/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
06/07/08	(S)	Heard & Held
06/07/08	(S)	MINUTE(ENR)
06/08/08	(S)	ENR AT 1:00 PM TERRY MILLER GYM
06/08/08	(S)	Heard & Held
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06/09/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
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06/10/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
06/10/08	(S)	Heard & Held
06/10/08	(S)	MINUTE(ENR)
06/12/08	(S)	ENR AT 10:00 AM FBX Carlson Center

WITNESS REGISTER

BILL WALKER, Attorney
Walker & Levesque
Valdez, Alaska; General Council/Project Manager
Alaska Gasline Port Authority (AGPA)
Fairbanks, Alaska
POSITION STATEMENT: Presented a PowerPoint report and answered questions on behalf of the Alaska Gasline Port Authority (AGPA).

CRAIG RICHARDS, Attorney
Walker & Levesque
Valdez, Alaska
POSITION STATEMENT: Participated in the presentation and answered questions on behalf of the Alaska Gasline Port Authority (AGPA).

HAROLD HEINZE, Chief Executive Officer
Alaska Natural Gas Development Authority (ANGDA)
Anchorage, Alaska
POSITION STATEMENT: Presented a PowerPoint report and answered questions on behalf of the Alaska Natural Gas Development Authority (ANGDA).

GENE DUBAY, Senior Vice-President, Chief Operating Officer
Continental Energy Systems
Houston, Texas

POSITION STATEMENT: Presented a PowerPoint report and answered questions representing the parent company of ENSTAR Natural Gas Company (ENSTAR).

CURTIS THAYER, Director
Corporate & External Affairs
ENSTAR Natural Gas Company (ENSTAR)
Anchorage, Alaska
POSITION STATEMENT: Participated in the presentation and answered questions on behalf of ENSTAR.

ANDREW WHITE, Manager
Business Development & Revenue Forecasting
ENSTAR Natural Gas Company (ENSTAR)
Anchorage, Alaska
POSITION STATEMENT: Participated in the presentation and answered questions on behalf of ENSTAR.

ACTION NARRATIVE

CHAIR JOHN COGHILL called the joint meeting of the House Rules Standing Committee and the Senate Special Committee on Energy to order at 10:16:39 AM. He announced that Senator Huggins would chair the meeting and turned the gavel over to him.

SENATOR HUGGINS expressed his belief that the delivery of natural gas in-state, as early as possible, was of the highest importance. He then discussed the agendas and schedules for the upcoming hearings.

HB 3001-APPROVING AGIA LICENSE
SB 3001-APPROVING AGIA LICENSE

CHAIR HUGGINS announced that the only order of business would be HOUSE BILL NO. 3001, "An Act approving issuance of a license by the commissioner of revenue and the commissioner of natural resources to TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd., jointly as licensee, under the Alaska Gasline Inducement Act; and providing for an effective date" and SENATE BILL NO. 3001, "An Act approving issuance of a license by the commissioner of revenue and the commissioner of natural resources to TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd., jointly as licensee, under the Alaska Gasline Inducement Act; and providing for an effective date.

10:20:24 AM

BILL WALKER, Attorney, Walker and Levesque; General Council/Project Manager, Alaska Gasline Port Authority (AGPA), thanked the committees for the opportunity to respond to the previous testimony on gas pipeline proposals. He said that he appreciated the time to speak about his concerns and share his experience of the last10years.

10:22:12 AM

MR. WALKER explained that there have been many previous processes regarding Alaska's "stranded gas" and several study groups [on] and attempts to build a gas pipeline. The Alaska Gasline Port Authority (AGPA) was created by a voter initiative with the mandate to cause a gas pipeline to be built. He opined that this is a unique period of time given the high energy prices that are causing a disparity between high costs to individuals, and high income to the state coffers. Mr. Walker began the PowerPoint presentation with a slide titled "The All-Alaska Project." He informed the committees that AGPA's all-Alaska gas pipeline project consists of a 48 inch pipeline from Prudhoe Bay to Delta Junction and a 42 inch pipeline continuing to Valdez. The project utilizes a high pressure dense phase pipeline with gas conditioning at the North Slope that removes impurities and compresses and chills gas to pipeline specifications. The pipeline is larger initially because, ultimately, there will be a spur line into Canada; however, the all-Alaska line serves as the "trunk" line. In addition, AGPA has entered into a memorandum of understanding (MOU) with the Alaska Natural Gas Development Authority (ANGDA), in order to provide spur lines to the Interior at Glennallen, and at Delta Junction for the spur line to Canada. This project is indentified as an LNG project, as the gas would be liquefied at Valdez for shipment to world markets. He further explained that the project is flexible and has adjusted to changes in the market and to the availability of gas from Prudhoe Bay, although its purpose has remained quite consistent. The AGPA Board of Directors is made up of nine representatives, three members each from the City of Valdez, the Fairbanks North Star Borough, and the North Slope Borough. Mr. Walker listed the proposed markets for AGPA's gas; Alaska, Japan, Korea, Taiwan, the West Coast, and Hawaii. Of course the foremost, and most important, market is Alaska's communities. In fact, AGPA has always negotiated contracts with provisions for the export of gas only after the satisfaction of in-state needs. Moreover, contracts with a rigid cut-off point on the amount of gas available for Alaska have not been acceptable to AGPA.

10:30:59 AM

MR. WALKER explained the reason that the above mentioned contracts are not acceptable is because many communities in Alaska do not have any access to natural gas, thus, AGPA can not predict how much gas would be consumed in-state, and does not want to draw a line in a contract and predetermine the amount of gas needed for Alaska. Therefore, AGPA will export only what is not needed within the state, and this statement, although not well received, was ultimately accepted in the contracts. Mr. Walker turned to the Asian market for LNG and explained that Alaska has been supplying LNG to the Asian market since October of 1969; in fact, that export license was recently renewed to 2011. Discussing the West Coast market, Mr. Walker informed the committees that AGPA is currently a participant in the expansion of the Sempra Energy Costa Azul LNG terminal in Baja, Mexico, located about 30 minutes south of San Diego, which is the only sanctioned-built LNG terminal operating on the West Coast. Sanctioning gas for the start-up came from Qatar, and was the longest shipment by the largest LNG tanker in the world. Mr. Walker stated that AGPA was pleased to also participate in Sempra Energy's open season. In addition, AGPA has been contacted by five or six companies attempting to build LNG receiving terminals on the West Coast. He clarified that AGPA is not basing its financial models on the West Coast market; however, the West Coast will present opportunities, as terminals become available.

10:33:18 AM

MR. WALKER stated that the Office of Hawaiian Affairs contacted AGPA approximately one year ago regarding the conversion of its power generation from coal-fired to natural gas. He related that officials from Hawaii are very interested in establishing a relationship with AGPA and expressed their preference for a 40 year contract for LNG from Alaska, over the importation of coal from Australia. Mr. Walker then presented a PowerPoint slide that illustrated the world markets, including the Asian and West Coast markets, that are available for Alaska's LNG. He pointed out the consideration of these markets makes good economic sense, even though some of the markets require the installation of gas terminals on the West Coast.

10:20:16 AM

MR. WALKER turned to the subject of export licenses and the challenges associated with them. Previously, AGPA entered into an agreement with the Yukon Pacific Corporation (YPC) to acquire YPC's rights and permits and, prior to that, a team of attorneys and engineers studied the YPC data collected during 20 years and $100 million worth of work on the all-Alaska pipeline. As part of that work, YPC acquired a 25 year export license for the export of 14 million tons of gas per year from Valdez to Japan, Korea, and Taiwan. He acknowledged that, prior to implementation, the license needs additional review with the U. S. Department of Energy (DOE). Nevertheless, he recalled the recent favorable decision on the extension of the renewal of the 1967 Kenai LNG export license and pointed out two of the successful arguments of that case: the presumption of exports and "allowing the market to work." The all-Alaska concept is not a 4.5 billion cubic feet (bcf) or 6 bcf per day project, with all of the product going to a foreign country. Although the administration has described the project as "a four and a half bcf project, going into China" in fact, the AGPA has never proposed going into China. However, the project has proposed taking some of the gas, when it becomes available, to the premium export markets. Again, he pointed out that arguments used to grant license renewals include the access to U. S. ports, and the availability of gas. Mr. Walker said that AGPA is encouraged by these arguments, and opined that the project, with the support of the state, will not be denied the opportunity to have a portion of its commodity go into a foreign country, similar to timber and fish exports. He referred to the U. S. Department of Energy, Office of Fossil Energy Authorization for Export of Natural Gas (Order 350), that authorized YPC to export gas to Japan, Korea, and Taiwan, and opined that the order would be retained.

10:40:01 AM

MR. WALKER further noted that Order 350 has no expiration date, and the time period of 25 years begins when the first shipment of gas takes place. Every project has its issues and challenges, he said, and this is certainly one that can be successfully addressed.

SENATOR WAGONER informed the committees that when he met with DOE in Washington, D. C., in March, officials held similar views about the export license; however, they cautioned about two areas of concern. Firstly, there must be a substantial rework of the environmental impact statement. Secondly, Mr. Bob Corbin, Natural Gas Regulatory Activities Manager, expressed doubt that Congress will ever allow Alaska to export its gas. Senator Wagoner asked Mr. Walker to address these issues.

10:42:02 AM

MR. WALKER recognized the potential for Congress to be involved in this issue. However, there is not precedence that a state is precluded free trade of its natural resources. Furthermore, he suggested that there would be support from the Alaska Congressional delegation and opined that a project that is good for Alaska would not be taken away by Congress. Nevertheless, it is true that the environmental impact statement and other permits need to be updated. He concluded that the real issue is that Alaska has the option of exporting its resources to premium markets.

10:43:22 AM

REPRESENTATIVE DOOGAN observed that the project proposes to move 4.5 billion cubic feet per day. He asked Mr. Walker to describe the scale of the project and to explain the scope of the Kenai [license] renewal.

10:44:09 AM

MR. WALKER clarified that the AGPA project "Is a 2.7 bcf project, it's not 4.5." He further said, "Two point seven is three trains, at five million tons per train. So, it's a fifteen million ton project, this is a fourteen million ton export license." The license for the Kenai plant is a much smaller project, in fact, the all-Alaska pipeline project is about ten times larger. He then pointed out that there are some in the industry who believe that the LNG project is the enabler for a later highway project; that would be a key point of argument in the event of a Congressional challenge to the exportation of Alaska's gas. Further on that point, Mr. Walker referred to Congressional interference with exploration in the Arctic National Wildlife Refuge (ANWR) and opined that additional interference with the export of gas would lead to a challenge by the state defending Alaska's right to develop its resources for the maximum benefit of Alaskans.

10:46:17 AM

SENATOR FRENCH re-stated that the two point seven bcf per day project equals fifteen million tons annually. He asked for confirmation that the Kenai renewal was for a total of between ninety-five and ninety-eight bcf, over a period of two years.

[Chair Huggins indicated that the verification of those numbers would be forthcoming.]

10:47:14 AM

REPRESENTATIVE KAWASAKI referred to the Alaska Natural Gas Pipeline Act of 2004 (ANGPA) and noted that under the $20 billion loan guarantee, there is a stipulation that most of gas must be provided for American markets. He asked Mr. Walker to address this issue.

10:47:44 AM

MR. WALKER answered, "When the energy bill first came out, we were not in it." The provisions for LNG were added about six months later with the assistance of Senator Ted Stevens, Senator Lisa Murkowski, and former Governor Wally Hickel. The language of the bill is sufficiently restrictive that if AGPA accepts the terms of the federal loan guarantees, it can not ship gas to a foreign market. Therefore, AGPA's model reflects the acquisition of favorable financing through the Japan Bank for International Cooperation (JBIC).

MR. WALKER acknowledged that obtaining the export license is, without question, AGPA's biggest issue. However, he said that the issue is "winnable" with the support of the state and its residents, and the support of Alaska's delegation. The attempt to obtain the [renewal] will happen after "all the pieces for the project, and we really need the support of the state and our delegation." He stressed that the issue will be resolved within the state and the federal government. Moreover, the license currently held by AGPA is one of only two issued in the U. S. for the export of LNG; possibly due to the recognition of Alaska's proximity to other markets.

MR. WALKER turned to the subject of Btu content and expressed his surprise at the amount of time given to this issue during the hearings. He recalled earlier testimony that "If you take the liquids out of, in Alaska for value-added, then the gas would be too lean and couldn't go ... into the Asian market." On the other hand, three days later, there was testimony that AGPA's gas is too "hot" to go into the West Coast market. In fact, AGPA's gas can go into the Asian market "hot or lean" and into the West Coast market at pipeline grade. He opined that this challenge was raised as a "deal-killer for gas of Alaska" and said that he is glad for the opportunity to respond at this time.

10:52:40 AM

CRAIG RICHARDS, Attorney, Walker & Levesque, reiterated that AGPA has been in regular contact with potential Japanese and Asian buyers for years and the Btu content has never been an issue. He expressed his belief that this argument was "created as an excuse of why LNG can't create more value-added jobs than a Canadian project." He remarked:

> In 2005, the Canadian premier of Alberta called Alaska's liquids 'Canada's pound of flesh' that they were going to extract out of the project. Basically, Alaska's liquids were going to be used to support the value-added industry already existing in Alberta and weren't going to be taken off in Alaska. So, I think what you have here is sort of an excuse to get around the fact that an LNG allows for a lot more liquids extraction in Alaska than a Canadian pipeline would.

MR. RICHARDS noted that an applicant could assume a "lean case" or a "wet case" for the purposes of the AGIA application models. The AGPA was conservative in its application and assumed the "wet case" of gas which is a heating content of 1,084 Btu per standard cubic feet (scf) as required by the AGIA request for application (RFA). Mr. Richards clarified that the values are an estimate because the exact numbers of gas contents are held confidential by the owners of the reserves. He continued to explain that an argument has been advanced that there is a structural impediment in Asia to prevent the receipt of gas below a certain energy content. On that point, AGPA's AGIA application does not propose sending super lean shipments to Asia, even though the heating content of the gas is not a problem. The application does provide for stripping out two-thirds of the propanes and butanes at the terminal at Valdez, which would produce about 23,000 barrels per day of LPG for export. This amount, which is about 30 times Alaska's current LPG consumption, would create a big pool of propanes and butanes available for in-state use. Nevertheless, the base case model indicates that there will be relatively "wet" gas, with a heating content of about 1060, available for shipment to Asia. Although that is the base case for AGPA's AGIA application, it is not the best case because the ethanes are included in the exported gas, and, ideally, the ethanes will stay in Alaska and provide value-added jobs for Alaskans. If, in fact, AGPA was sending super lean gas to Asia in its model, although it is not, there still is not a problem. According to Asian sources, the fact of wet gas going to Asia is not a capacity requirement, but a factor of circumstance, price, and market conditions. Historically, shippers did not extract liquids from the gas because the Asian markets were willing to pay a premium price for the liquids. However, with rising oil prices, the market has shifted and now LNG suppliers are stripping out the propanes, butanes, and ethanes, prior to shipping the gas. Mr. Richards provided a PowerPoint slide illustrating LNG imports into Asia with examples of gas composition, such as very lean gas from Kenai that has heating value levels of 1010 Btu/scf to 1020 Btu/scf.

10:56:45 AM

REPRESENTATIVE SAMUELS recalled the past interest in having a take-off at the Yukon River for the distribution of propane to Western Alaska. He asked whether Mr. Richards had "run the economics of taking it in Valdez and having to ship it around."

MR. WALKER offered that expert testimony on the subject of extraction would come from Mr. Harold Heinz, Chief Executive Officer, Alaska Natural Gas Development Authority (ANGDA).

REPRESENTATIVE NEUMAN observed that if all of Alaska converted its energy needs to the use of propane, total use would be about 10,000 barrels per day. He asked for confirmation that there would be a large capacity of propane still available for export, including butane and ethane.

10:58:41 AM

MR. WALKER agreed, and added that if all of the propanes were extracted in Alaska, the Btu content of the remaining gas would still be within an acceptable range for shipping to the Asian market.

REPRESENTATIVE KELLY stated that any of the projects proposed are dependent on producer gas; furthermore, previous testimony indicates that the producers are not interested in pumping up the Pacific Rim LNG market from Alaska because they have other opportunities to feed into that market. He asked whether the producers will be cooperative with AGPA on the issue of supplying gas for a project that would not transport gas to the U. S. market through Canada, but to the Pacific Rim.

11:00:32 AM

MR. WALKER emphasized that AGPA has received no indication leading it to believe that producers have no interest in shipping gas through a LNG project into the Asian market. He said that he did not support the conclusion that because two of the three biggest producers are interested in Denali - The Alaska Gas Pipeline [(Denali project)], they would not be interested in shipping to an LNG project. He opined that business decisions are based on opportunities to receive the highest wellhead value for a company's gas.

11:01:42 AM

The committees took an at-ease from 11:01 a.m. to 11:17 a.m., due to technical difficulties.

11:17:32 AM

MR. WALKER continued to address the question raised by Representative Kelly. He pointed out, currently, producers are taking LNG into the Asian market due to the significant premiums that are being paid. In addition, AGPA has researched the Japanese market and has determined that it is the fastest growing market and the need for additional LNG is very significant. In fact, the growth pattern is such that the volume of LNG out of Alaska will be at a premium and will interest producers.

CHAIR HUGGINS announced that Senator French was correct in that the LNG plant at Kenai is licensed for exports of 98 bcf over a two year period. Mathematically, this volume equals .13 bcf per day, or about 1 million tons per year.

11:19:38 AM

SENATOR WIELECHOWSKI spoke of the disagreement over the amount of time necessary to get the LNG project online. For example, he heard the administration testify that an LNG project would come online in 2022. However, AGPA testified that its project would be online in about seven years. He asked Mr. Walker for a brief clarification.

MR. WALKER related that the YPC's permits and environmental impact statements need to be updated, and the time saved by purchasing these documents falls in the range of between two to four years. Alaska Gasline Port Authority's partner, Bechtel Corporation, estimated a project time of six years, using the permits on hand. However, for the purpose of the AGIA application, AGPA assumed there would be no time savings advantage from the existing permits, and estimated a project time of ten years.

11:21:40 AM

REPRESENTATIVE DOOGAN referred to the PowerPoint slide titled "LNG imports into Asia: examples of gas composition." He pointed out that the administration said that the line between lean gas and wet gas is [drawn at the Btu/scf level of] 1080, which includes [gas from] Kenai and Egypt. Further, the volume of Kenai gas is small. He asked for the volumes of Egyptian gas. [According to the witness, this information will be revealed on the following PowerPoint slide.] Representative Doogan then asked whether there is a price differential between dry gas and wet gas in the Asian market.

MR. RICHARDS clarified that at today's market price, the premium is essentially the same whether the propane is extracted or not.

11:23:13 AM

REPRESENTATIVE DOOGAN recalled previous testimony that one gets a lot more money for a bcf of gas in Asia than in the U. S. On that point, wet gas is usually shipped to Asia and dry gas to the U. S. He asked whether the gap between the values would close if the price of dry gas shipped to Asia was compared to the price of dry gas shipped to the U. S.

11:23:56 AM

MR. RICHARDS said that the gap would grow larger because more money is made if the gas is shipped to Asia after the liquids are extracted.

11:24:12 AM

REPRESENTATIVE DOOGAN re-stated his question. He said, "If just for the gas, [do] you get paid less for dry gas than wet gas in Asia?"

MR. RICHARDS said yes, because it has a slightly lower heating content. In further response to Representative Doogan, he said that he would provide quantified information on the difference in value.

SENATOR ELTON asked Mr. Walker to address the ocean transportation component of the project and its effect on the timing of the project.

11:25:19 AM

MR. WALKER informed the committees that AGPA has entered into an agreement with BGT Co. LDT, and eight ships will be available to transport shipments to the U. S. after they are reflagged. According to Senator Stevens' office, the reflagging of U. S. built tankers is not a significant problem. For overseas shipping, AGPA has entered into an agreement with MOL Mitsui O. S. K. Lines. Mr. Walker concluded that working with those two companies will assure ample ships are dedicated to this project.

11:26:27 AM

MR. RICHARDS returned to the subject of the heating content of gas shipped into the Asian market. In the example of the LNG base case, after the extraction of propane and butane in Alaska, the remaining 23,000 barrels per day available for export will hold a heating content of about 1060 Btu per standard cubic foot (scf). This heating content is roughly on par with gas from Qatar, Abu Dabi, and Nigeria. Moreover, if the ethanes are pulled out to develop a value added industry in Alaska, the result is a leaner gas with a heating content equal to that of Egypt, Trinidad, and Kenai; however, the lower heating content is still not a problem. Mr. Richards returned to the PowerPoint slide titled "LNG imports into Asia: examples of gas composition" that illustrated the market share of utilities in Japan, and the heating content of those gases. The slide indicated that ninety-five percent of Japanese utilities are capable of receiving the base case gas with a heating content of 1060 Btu/scf.

11:28:07 AM

SENATOR WIELECHOWSKI asked whether Japanese utilities typically receive lean gas. He also requested an estimate on the percentage of loss due to the lower price paid for super lean gas.

MR. WALKER said that AGPA did not have a specific number for the percentage of loss; however, he pointed out that if liquids are removed from the gas it is because there is a good commercial reason to sell them elsewhere. Furthermore, if the liquids are removed in Alaska, lower revenues from Japan are balanced by the creation of value-added jobs and industries in Alaska.

CHAIR HUGGINS clarified that the question was on the market price of lean gas. [The witness agreed to provide the market information.]

11:29:27 AM

SENATOR WIELECHOWSKI recalled testimony that emphasized how high the market price needed to be for a successful LNG project.

11:30:01 AM

MR. RICHARDS opined that the decision as to whether to extract liquids at the point of production is based on the pricing environment. The financial model provided by AGPA stripped out two-thirds of the propanes and butanes, because that was the most profitable scenario. The next PowerPoint slide illustrated that 100 percent of Korean utilities are capable of receiving super lean gas.

11:30:37 AM

REPRESENTATIVE DOOGAN expressed his understanding that, in order to utilize lean gas, which is gas with a heating content below 1080 Btu/scf, gas liquids must be put back in the gas until the heating content is increased to 1080 Btu/scf. He asked whether Mr. Richards agreed with his statement.

MR. RICHARDS said:

> My understanding is that it is on a case-by-case basis, sometimes they bring back in liquids, sometimes they don't need to. But, again, you go there and you do that when it is more economic to re-blend in the liquids as opposed to shipping it; ... a function of market price.

11:31:41 AM

REPRESENTATIVE DOOGAN remarked:

> My concern would be, if we're shipping a bunch of dry gas, and they have to blend it with liquids, they've got to get the liquids somewhere, otherwise they don't

want our gas. So I think, if that's the way that system works, it's not clear to me, sitting here, that you can actually sell from Alaska, on the volumes that we're talking about, dry gas. Strip out those liquids, and ship dry gas to them, and sell it.

11:32:10 AM

MR. RICHARDS re-stated that AGPA will provide the requested numbers. He relayed that a Japanese buyer assured them that this does not present a problem.

MR. WALKER clarified that the project proposed by AGPA is a 2.7 bcf [per day] project. The "straw" project that was presented by the administration is a 4.5 [bcf per day] project and both the administration and AGPA agree that it is too large in volume for the market. He observed that, unfortunately, the administration's base case analysis is based on a 4.5 bcf per day project. Mr. Walker pointed out that AGPA's research supported a 2.7 bcf per day project, based on the market acceptance and that 2.7 bcf per day is a better fit with the capacity at Prudhoe Bay and with off-take provisions from the Alaska Oil and Gas Conservation Commission (AOGCC).

11:34:07 AM

REPRESENTATIVE CHENAULT asked, "Back to the 2.7 bcf a day, the AOGCC, ... is that the number that you believe AOGCC thinks the Prudhoe Bay take-off is?"

11:34:37 AM

MR. WALKER confirmed that currently, that is the AOGCC "rule 9" number. He opined that subject to receiving a request for increase from an applicant, AOGCC can increase the limit. The current limit was established in the late 1970s or early 1980s. He clarified that the number is really 2.0, because 0.7 is used as in-field gas. Mr. Walker was unsure by how much the off-take would be increased; however, it was ruled last summer that off-take over 2.7 would require an oil mitigation plan to address the drop in the throughput of oil. He stressed that the AGPA project does not require an oil mitigation plan.

REPRESENTATIVE CHENAULT acknowledged that the AOGCC will be available to answer questions during the hearings in Anchorage. He observed that AGPA will "burn gas for compression and you're also going to burn gas for ... the [gas treatment plant]." He concluded that these two factors will weigh heavily on any size pipeline that is built.

11:36:10 AM

SENATOR HOFFMAN recalled previous testimony that a 4.5 [bcf per day] project would bring to the state $66 billion over 25 years. He asked what a 2.7 [bcf per day] project would bring to the state.

11:36:39 AM

MR. WALKER estimated that the number would be in the $30 billion range, or $29 billion. He acknowledged that the revenue would be less; however, in addition to looking at the wellhead, AGPA is looking at the benefits of in-state use. Although he did not offer a dollar amount value, he anticipated a healthy return to the state for its non-renewable resource. In fact, the revenue for the same amount of gas will be earned over many more years.

11:37:41 AM

SENATOR HOFFMAN opined that, for comparison purposes, it is critical to define the numbers for the legislature's decision-making [process].

CHAIR HUGGINS also asked representatives from the administration for numbers from the administration's analysis.

11:38:24 AM

MR. WALKER presented the PowerPoint slide titled "Liquefaction Cost." He expressed his concern about the process the administration used to obtain numbers for its model. In order to fully evaluate what the administration did, it is necessary to look at their model and AGPA would like its advisor to review the state's model; however, the model and input have not been made available. Mr. Walker opined that the administration may not have taken AGPA's application and model into consideration. The administration may have mined data from projects in different parts of the world and of different sizes, and then escalated costs to match the size of the project in Valdez. Adjustments were also made for the costs of construction in Alaska. He noted his disappointment that data specific to AGPA's cost analysis for the costs of liquefaction was not used. Publically available data causes problems due to the fact that the information may not be specific to LNG and may have other pipeline costs included. In fact, by using this method of evaluation, the administration may have missed the biggest benefit of liquefaction in Alaska: cold temperatures. The gas comes in already at 2,200 pounds per square inch (psi) in a high pressure dense base pipeline. The result of not taking this factor in consideration may have been that the project was charged twice because other projects have to pay to get to this point. Bechtel Corporation anticipates that this advantage will contribute to a 40 percent more efficient project. A plant in Trinidad, for example, may not be comparable to the unique operations in Alaska.

11:41:4 AM

MR. WALKER stated that AGPA established a partnership with Bechtel Corporation because they are the leader in LNG plants. Bechtel's first plant was in Kenai and since then it has built LNG plants around the world with the best technology. Data on AGPA's project, including the liquefaction plant, is complied in Houston, Texas. Bechtel spent approximately $8 million dollars, between 2000 and 2005, on putting the application together and updating information; the company has spent an additional $2 million to complete the AGIA application. Approximately 50 engineers have worked to develop a cost estimate specific to Valdez, Alaska, and Mr. Walker opined that gathering data in this manner is a superior process and has resulted in a better estimate for the Alaska project. He recalled in 2006, Econ One compared the "Y-line" and, at that time, determined that if LNG precedes the highway project by three years, the all-Alaska project will have a return superior to the highway line. He remarked:

> And so we were surprised to see that in the netback comparison now, ... the LNG was pushed to two years after a highway line when we're sitting with the benefit of $100 million of work by Yukon Pacific over a period of 20 years. We ... didn't see the net present value of it going earlier. So, we did lose in that net present value analysis but we were two years behind, which I certainly expect, if you're going later you're going to lose net present value (NPV) analysis. ... According to our model, our work, our application, we're about $1.00 per NCF [net cash flow] wellhead superior to a highway project. ... We think if the same analysis was done now, it would be even more robust. ... Again, we would like to ... have access to all of the data that was used to analyze our

application ... so we can better understand the netback analysis.

11:44:45 AM

REPRESENTATIVE COGHILL asked for a further explanation regarding the estimate of $7 billion for construction of the 2.7 bcf liquefaction plant at Valdez. He pointed out that the estimate is exclusive of ownership and financing costs. Representative Coghill opined that previous estimates included these costs.

11:45:37 AM

MR. WALKER confirmed that those costs are excluded. He explained that AGPA wants to better understand the administration's data so that the comparisons are more "apples to apples."

11:46:04 AM

REPRESENTATIVE COGHILL observed that all of the previous discussion with regard to the price per NCF had to do with, not only the volume flow, but the cost of transport and the treatment plant. He encouraged witnesses to provide a figure that includes the treatment plant, the pipe, the transport, the liquefaction, and the tariff for each. In fact, financing is a big part of that. Representative Coghill stressed the importance of models that bring continuity to the discussion.

MR. RICHARDS explained that the reason the owner's and financing costs were not included was because the data put the owner's and financing costs in "one bundle." He said that he did not have sufficient information to break out the total finance and owner's cost to attribute to liquefaction. However, this information will be provided in the netback analysis.

11:47:19 AM

REPRESENTATIVE NEUMAN recalled that a previous all-Alaska pipeline plan included building a 48 inch line, with a smaller line down to Valdez, resulting in a Y-line. Considering Alaska's priority to get natural gas to Alaskans, and that developers can work in unison, he asked whether there is a way to work on a line that brings that larger line into Canada and, at the same time, build a spur line to Valdez.

MR. WALKER replied, "We believe so." He added that because this project is controlled within the state and this country, AGPA has the ability to bring gas to tidewater significantly faster than through the Canadian project.

REPRESENTATIVE NEUMAN commented that the question remains whether that can be done concurrently, without the lines becoming competing pipelines.

11:49:32 AM

REPRESENTATIVE SAMUELS noted that the netbacks will drive the direction of the project. In the past, there have been lower volumes and higher costs; however, now the market has boomed, which overwhelms the lack of volume and higher cost.

11:50:18 AM

MR. WALKER agreed.

REPRESENTATIVE SAMUELS recalled previous testimony predicting that the market in Asia, and particularly in Japan, will drop and return the market to the scenario of lower volume and higher cost. He asked for Mr. Walker's analysis of how flexible, or how firm, the differential in the market price will be, knowing that there will be higher cost and lower volume.

11:50:59 AM

MR. WALKER said that AGPA agrees with "gas strategies" analysis of the future market. In addition, AGPA's analysis showed a relationship with the price of oil of about 80 percent. He opined that an advantage of LNG is that there are multiple markets and premiums for natural gas even if prices come down. Obviously, LNG is sold on long-term contracts, but those contracts also provide diversion rights so that cargoes can be taken to a higher market.

11:52:37 AM

REPRESENTATIVE SAMUELS remarked:

> If you have a line going through Canada, whether you agree with AGIA ... the minute you have that line built as you get incremental gas, it will always behoove the producer of that gas to put it into main line. And you would never accumulate enough to get a

Y-line, and that was my thought. ... Do you agree with that? ... Since you'd already have a pipe going from Prudhoe to Delta, is that distance from Delta to Valdez short enough to make a smaller amount pay to actually get the line built with that tariff?

11:53:46 AM

MR. WALKER agreed with Representative Samuels' concern. He opined that AGPA is aware of the situation; however, that is not the driving force to get the LNG in first.

11:54:45 AM

REPRESENTATIVE DOOGAN referred to testimony from the administration's consultants that indicated that one of the disadvantages of shipping to Asian markets is that long-term contracts would have to be signed. He asked for an explanation of long-term contracts and "market optionality."

11:55:36 AM

MR. WALKER replied that long-term contracts have a floor price and a ceiling price. He gave an example of the diversion of cargo from Trinidad to Tokyo. All of the costs were shared, within the fixed price range, and with the security of a long-term contract.

11:56:45 AM

REPRESENTATIVE DOOGAN asked whether the contracts are an industry standard contract or are unusual.

11:57:02 AM

MR. WALKER responded that each contract can be somewhat unique, but a 40 year history of on-time deliveries from Alaska will carry a premium when compared to contracts from other locations.

11:57:33 AM

REPRESENTATIVE DOOGAN asked how a utility in Tokyo can afford to allow its gas to be diverted to another market.

MR. WALKER assured Representative Doogan that the contract would be fulfilled by replacement gas from another location.

11:58:18 AM

SENATOR THERRIAULT referred to previous testimony from Econ One about the AGPA project time advantage and the resulting increase in net present value given to the project. Now, the committees have heard a lot of technical advice that indicated that AGPA's project probably would not be able to deliver that much earlier. He questioned whether AGPA has the technical ability to put the project into production earlier.

11:59:26 AM

MR. WALKER said that he did not know why the technical team did not take into consideration permits that are already held by AGPA. He re-stated his disappointment that $100 million was spent on obtaining YPC's permits, and those permits were not recognized by the technical team. He expressed his hope that the model will answer that question.

12:00:15 PM

CHAIR HUGGINS announced that the hearing would [recess] until 1:30 p.m.

CHAIR HUGGINS called the meeting back to order at 1:23:06 PM.

1:39:47 PM

MR. WALKER continued his presentation and pointed out some positives that should be considered with the AGPA project, such as that it is 100 percent within the Trans-Alaska Pipeline System (TAPS) corridor from Prudhoe Bay to Valdez. Additionally, he noted that the AGPA project is in a designated federal and state conditional right-of-way (ROW). He elaborated that the TAPS corridor has been referred to as the most studied piece of earth on the earth, having submitted to three environmental impact statements (EIS), two from Alyeska Pipeline Service Company (Alyeska), and one from YPC. He noted that an in-state line avoids foreign issues, since all the issues can be resolved in Alaska and the United States. He opined that AGPA is very pleased with what YPC has done, with probably five different companies performing due diligence on the work and none has come back and said the permits are without value. Instead, all reported the permits are valuable and that they have been updated, renewed in a timely manner, and have not expired, he stated. Some reviewers have said the environmental data is almost more important than the license itself. He pointed out that some of the permits took seven to eight years to obtain and that the process to update is much simpler and easier than initiating a new permit. He offered his belief that it saves years, although just how many years is one of those issues that no one is going to know for sure. He noted there are 12 permits in all that were submitted in its initial application and in prior submittals to the legislature. He referred to the acceptability of gas and of Alaska's gas in the Asian market. He opined that consultants can take different positions on the same issue. He said that what gives him confidence is about a month ago, he met with Tokyo Gas and Tokyo Electric representatives and discussed this project with them. He noted that most of the discussion related to their satisfaction with 40 years of shipments of on-time deliveries from Alaska. He elaborated that these companies are getting ready for a big celebration of the 40th year of that contract. He opined that stability of supply will continue to be a very high priority to them. He pointed out that at no point did the executives discuss the level of Btus and heat content, or wet gas versus dry gas. Mr. Walker maintained that the on-time deliveries spanning 40 years "seemed to be most on their mind in our discussions."

1:43:40 PM

CRAIG RICHARDS, Attorney, Walker & Levesque, referring to the slide labeled, "Canadian Delay - Bennet Jones Report", offered to briefly review concerns and issues. He stated that the Canadian Northern Pipeline Act (NPA) was passed in the 1970s as part of the "push" during that time period to grant what might be considered an exclusive license to Foothills Pipe Lines Ltd. (Foothills), now TransCanada, to arrange for the Alaska pipeline to go through Canada. He related that the NPA created an agency to oversee all the rights of way and permitting for TransCanada. However, much like the environmental laws in the U. S. during the 1970s, 1980s, and 1990s, environmental laws in Canada matured resulting in regulatory structures layered on top of the NPA. It's unclear in Canada whether or not the exclusive regulatory authority of the NPA controls, or whether [TransCanada] will also need to comply with all the regulatory requirements from the additional laws that have passed since that time, he stated. He opined that the single most important information in the AGIA findings is the Bennet Jones report, which is an 80-page report that essentially discusses all of the issues of Canadian land rights and land acquisitions for TransCanada. He elaborated that the report discusses not only TransCanada's project, but also highlights issues an independent, third party project, such as the Denali project, would face. He referred to the next slide labeled, "Canadian Delay" and stated that when TransCanada came forward with its application it estimated 2017 as the date in which it could bring the first gas to market, and it allowed five and one-half years for regulatory compliance in Canada. He noted that the Bennet Jones report indicated that five and one-half years is simply the best that could happen, which he opined is not likely. He offered that a more likely timeframe is seven to eight years, which he surmised is why the administration probably pushed TransCanada from 2017 to 2020. He stated that the AGPA application came in with about the same 2017 time period, ignoring the advantages of the YPC's licenses. He opined that the AGPA believes the time period could actually be one or two years earlier. However, he noted that AGPA conservatively is using the 2017 time frame. However, he opined that AGPA immediately has a two to three year advantage over TransCanada's project since the administration moved TransCanada's start date forward two to three years based on the Bennet Jones report. He opined that the main issue in Canada is that TransCanada does not have a legal right-of-way (ROW). He explained that the route is not clearly identified, which means that TransCanada, according to Bennet Jones, will need to go through a lengthy ROW project similar to the Mackenzie Valley Gas Project. The second source of delay that the TransCanada project suffers from is the risk of [negotiations with the] First Nations which is more difficult to quantify, he opined. He explained that approximately 40 aboriginal First Nation groups within the British Columbia, Yukon, and Alberta areas were identified by TransCanada in its application, which it must independently consult.

1:47:48 PM

MR. RICHARDS continued by stating, "This is what really put the halter on the Mackenzie Valley Project. In 2005, Mackenzie Valley basically stopped all implementation and design activities and turned the project solely into a regulatory compliance mode." He opined that Mackenzie Valley needs to resolve the First Nations issues and get through the regulatory process before it can resume. He surmised that "essentially it came down to money." He noted that the Bennet Jones report highlights that legal challenges to TransCanada by First Nations for a failure to consult, or alternatively, consulting without arriving at an acceptable outcome, could result in legal challenges. He speculated that litigation to resolve the First Nations issues might take from three to ten years to resolve.

1:50:30 PM

MR. RICHARDS, in response to Representative Guttenberg, answered that he did not know whether the relationships that were developed in the Mackenzie Valley process could be transferred to TransCanada.

CHAIR HUGGINS suggested that the committees would have an opportunity to hear testimony from TransCanada and the administration, which could address that matter directly.

1:51:16 PM

SENATOR WAGONER opined that his information is different than Mr. Richards'. He inquired as to whether he could confirm that the administration is using the completion date of 2020 based on the Bennet Jones report.

MR. RICHARDS said he thought the administration is basing the completion date on the Bennet Jones report.

CHAIR HUGGINS interjected that the administration could clarify that matter when its representatives testify before the committees.

1:52:22 PM

REPRESENTATIVE WILSON inquired as to whether the Bennet Jones report differentiates between timelines for a Canadian group versus a group outside of Canada.

MR. RICHARDS recalled that the Bennet Jones report estimated that the NPA single window provision would give TransCanada a one-year advantage over a third party project.

1:53:12 PM

MR. RICHARDS related that one of the four major delays is NPA exclusivity. He explained that a third party is allowed to build just outside the regulatory framework. Thus, a third party could build "outside of the Northern Pipeline Act and any exclusivity that TransCanada has there." Thus, this is "teeing up as a big challenge and a big fight" since the Denali project must argue that it is not exclusive of TransCanada, and TransCanada will have to "defend its turf" to assert it is the only one that can move forward with the Alaska Highway route.

He opined that the final source of delay is the repeated public statements by producers that the "Mackenzie Valley has to go first." He referred to a quote from a representative of ConocoPhillips Alaska, Inc., that Mackenzie Valley's project must go before Alaska's project. He further opined that the reason for that is that as Alberta matures and its basin begins to decline, the plan, from the producers' standpoint, is to bring Mackenzie Valley on line to offset the gas no longer available from Alberta, in order to capture the difference in market growth. Once Mackenzie Valley matures, Alaska gas could come in and offset reductions for that field, he predicted.

CHAIR HUGGINS offered that the committees will seek to hear the perspective from the Denali project members on that issue.

1:55:43 PM

MR. RICHARDS referred to his next slide labeled, "Canadian Delay". He explained that this is a hypothetical model for the timing profile that attempts to fit a reasonable risk distribution for the timing elements of the project based on the Bennet Jones report. He explained that the slide is based on the estimated timeframe of five and one-half years to resolve all land issues for TransCanada's application. He pointed out that the more likely seven to eight year time period is represented on the graph at "P 50" and the ten year period represents the timeframe that exclusivity runs out under the AGIA license. He related that this graph represents an artificial distribution curve around the three dates to highlight the "tail distribution." He opined that one must recognize that some probability exists that the right-of-way (ROW), Mackenzie Valley, and First Nations issues previously identified may take from 10 to 15 years, or beyond, to resolve. He highlighted that until the process begins and the producers react with respect to exclusivity provisions, it isn't possible to accurately assess the risk distribution, or how long the process will actually take.

1:57:21 PM

REPRESENTATIVE NEUMAN asked Mr. Richards to comment on using a hypothetical assumption of demand for gas at 2018.

MR. RICHARDS responded that the graph outlines the number of years it would take to get permitting in Canada "once you get the ball rolling." He related his understanding that the five and one-half years [for permitting] corresponds with

TransCanada's 2017 date. He further commented that the most aggressive [permitting] scenario that Bennet Jones predicts is 2017, which is represented on the graph at the point the line begins to sharply rise up [between years five and six]. He opined that the Bennet Jones report outlines the issues very thoroughly and he encouraged members to read the report.

1:58:42 PM

REPRESENTATIVE WILSON asked whether gas that comes online before the Mackenzie Valley gas would be used, should any project be completed ahead of schedule.

MR. RICHARDS answered that he thought that would be a good question to ask the Denali project representatives.

1:59:28 PM

MR. WALKER referred to the next slide labeled, "Risk" and offered AGPA's view on the risk about LNG versus pipeline. He noted that AGPA was advised by its consultant contractor Bechtel Corporation, with respect to the all-Alaska project, that higher risk exists for the pipeline than for liquefaction. He explained that liquefaction is well developed, that the technology that would be used was developed in other projects around the world, and that the risk factors associated with liquefaction would be of a lesser percentage than the risk with the pipeline portion of the project. He offered that discussion has transpired in the past10days with respect to the commercial pieces associated with the LNG project. He recognized that the gas pipeline, the gas inlet, liquefaction, shipping, and re-gas, are all pieces that would need to be negotiated. He pointed out that this is not the first liquefaction project, as the Nikiski LNG plant came first. He opined that AGPA is not concerned about the commercial negotiation between willing participants and that AGPA's consultants have advised them that success will require a number of contracts to come into place but that doesn't represent a particular downside or a threat to the project.

2:01:20 PM

REPRESENTATIVE COGHILL inquired as to whether AGPA could provide modeling for the proposed project and for costs of the components of liquefaction, shipping, and gas conditioning with timelines in present dollars.

MR. WALKER answered that its AGIA application contains a complete working model with every piece of the project model. While he acknowledged that the model itself is confidential, he offered that AGPA could provide a summary of the modeling. He further answered that AGPA has been continuing to work on the liquefaction piece of this project and that he believes it will be accomplished. He opined that AGPA believes, with respect to the pipeline and gas conditioning, that TransCanada is the best option per the qualifications and experience in a northern climate. He noted that AGPA has previously reviewed different companies on the pipeline component, and that it has undergone memorandums of understanding (MOU) with some companies, AGPA "would be absolutely thrilled to work with TransCanada." He further noted that if one project is ready to go sooner and it's the all-Alaska route, that "we would like to do that, our first choice; we would do it in some way under AGIA with TransCanada."

2:05:55 PM

REPRESENTATIVE FAIRCLOUGH related her understanding that AGPA is attempting to convince the committees that LNG is good for Alaska. However, before the legislature is a licensing application for TransCanada, she stated. Therefore, she said she would like to know from AGPA how its [application] complies or does not comply with AGIA. She pointed out that the committees are not considering an in-state route, but is currently only considering TransCanada as the licensee to operate a pipeline through Canada. She noted that AGPA has raised some questions, specifically that the legislature should challenge [TransCanada] on its methodology for a cost-modeling scenario. She recalled slides that showed variables for costs in constructing an LNG plant, but did not provide any specifics on a timeline and provided a wide range of costs with the top figure at $40 billion. Secondly, she further inquired as to whether AGPA wants the legislature to consider AGPA's proposal, and if so, why is its proposal better than TransCanada's proposal. She noted that with the modeling on the net present value (NPV), she questioned whether the administration has modeled it correctly if AGPA was the first project moving forward versus the second following the major pipeline. Thirdly, she further inquired as to what the administration has not considered, from AGPA's perspective, in the administration's analysis of advancing TransCanada before the legislature. Finally, she inquired as to what the legislature should be cautious about since she scanned the presentation and did not see those issues raised. She said she hoped that instead of continuing with an in-state conversation over the next month that AGPA could formulate and model some of these issues. Representative Fairclough reiterated that " ... I'm considering a yes or no vote on TransCanada and questions that I need to ask to make that evaluation."

MR. WALKER answered that TransCanada's application provided for an open season for an LNG project in Valdez. He stated that AGPA is not asking the legislature to choose its project over another project. However, he opined that the AGPA project will be ready to go first. He expressed concern about waiting for another project before the all-Alaska line can proceed. He noted that AGPA is pleased the pipeline company would bring the gasline to the inlet of the [proposed] liquefaction facility in Valdez, which he offered is "pretty clear in the application." He reiterated that AGPA is not trying to compete, but that it would like to keep all the options open. He continued:

> And all we're saying is that if the all-Alaska line can work within AGIA - we're not trying to come and ask them, we've been through whole process - we're looking at an applicant, a good applicant, a good application, that is referencing, make a specific reference to being able to, and would be willing to bring a line to build the all-Alaska line.

2:10:20 PM

REPRESENTATIVE FAIRCLOUGH, as a follow-up question, inquired as to the source of the gas. She related her understanding that AGPA considers the source from Prudhoe Bay. She said:

> We've asked specifically whether the Alaska Oil and Gas [Conservation] Commission (AOGCC) is going to advance a letter for more withdrawal because, at least those of us who served [on the House] Resource[s] [Committee] heard from Cathy Foerster saying that that number would be reduced, not increased.

MR. WALKER responded that the gas would come from the same source that it would for a Canadian project. He pointed out that if the [projected] amount is going to be reduced, that the AGPA is the smaller project and does not have to wait for additional discoveries or gas to be proved. He highlighted that if AGPA is within the limits of the offtake of AOGCC, given that the project is ready to proceed, AGPA hopes it would be allowed to go first with the all-Alaska line while other explorers are queuing up to provide additional reserves. He expressed concern for delays to resolve issues associated with a project in Canada. He highlighted and quoted TransCanada in its application as stating, "We think it's a wonderful thing, a wonderful opportunity." He further highlighted that TransCanada said it will hold an open season for the all-Alaska line.

2:11:46 PM

REPRESENTATIVE FAIRCLOUGH said:

> Respectfully, I haven't been convinced that we have enough gas to do the full pipeline let alone some kind of a "Y-line" that would go down to Valdez, so I guess that is where you need to lobby me from. Representative Samuels specifically spoke to and asked questions in Juneau on the fiscal economies of being able – for a producer to commit - to move off the main line once the main line went in so if your proposal from my perspective right now is not successful as being the winner in-state, to bring the gas right to you, it will be years and years, if ever, that we can provide the "Y" coming off of it or go to LNG if we go through TransCanada. The 4.5 route, won't be able to take 2.7 off of it.

2:12:39 PM

CHAIR HUGGINS offered to get further clarification from AOGCC. He stated that the committees anxiously await that projection since it has a major bearing on the matter.

2:12:56 PM

MR. WALKER continued. He maintained that AGPA is not trying to stop another project. He stated that if a project is ready to proceed, that is within the limits of AOGCC offtake and is good for Alaska, that project should not be delayed and we "should get gas moving as quickly as possible." He offered to present AGPA's economic model as it did two years ago during a three day presentation in Juneau. He explained that AGPA did not tailor its presentation to include its economic model, which was created by a Washington D.C. company that prepared the cost analyses on a number of LNG projects around the world. He reiterated his support for AGPA's economic model.

MR. WALKER noted that AGPA examines its project's risks and he said he feels that it does control the risks associated with

AGPA's project, which he said he thought was important to note. In response to Representative Doogan, Mr. Walker answered that he is referring to permitting risks.

2:14:36 PM

REPRESENTATIVE DOOGAN inquired as to whether the Federal Energy Regulatory Commission (FERC) will be involved in permitting the AGPA's project.

MR. WALKER responded that the board met with FERC in Valdez and reached a decision that AGPA would go through the FERC process due to concern that delay that would be caused in trying to avoid the FERC review. He highlighted that the benefit of submitting to the FERC process is that AGPA would have the market "optionality" of going to Hawaii, the West Coast, and the Asian market. He opined that if AGPA did not submit to the FERC process, that it would be limited to just the Asian market. Thus, he noted, AGPA's preference is to submit to a FERC process.

2:15:50 PM

REPRESENTATIVE DOOGAN clarified and surmised that all pipeline groups must go through FERC review.

MR. WALKER answered that Representative Doogan is correct.

2:16:03 PM

REPRESENTATIVE THOMAS noted that "timing is everything" and related his understanding that the potential exists for TransCanada to build a line to Valdez. He noted that he agrees with Mr. Walker, if the state is limited in the gas resource, that AGPA is a smaller offtake, which potentially "gets the gas moving." However, he also pointed out that "we have this looming situation of supply and energy for the U.S." He inquired if Canadian production drops off whether AGPA has examined the potential of West Coast receiving stations, particularly "due to the lack of the Alaska line being economical with 4.5 bcf going down [the pipeline] because it's limited from Prudhoe." He further inquired as to whether Mr. Walker foresees that the receiving stations on the West Coast "picking up that slack" to at least put gas into the West Coast. He noted that California has a big market that might lose its supply going through Canada.

MR. WALKER answered that many have reviewed this, in fact, AGPA has a relationship with Sempra Energy and is bidding on a capacity of their existing terminal. He explained that AGPA has had numerous meetings with those that hold a permit for a port facility in Kitimat, British Columbia. He speculated that some companies in Oregon and Washington believe they will get a permit as well. However, AGPA has a relationship with "the one that does have the only receiving terminal and one that has the permit to build one," he said. He stated that if the situation and circumstance required it, that shipment could be diverted to those locations. He offered that AGPA is aware of the issues of the Jones Act and have located tankers that would be Jones Act compliant. He opined that AGPA could accommodate that scenario. He further opined that a benefit of LNG is that one can divert from one location to another as long as one is covering the market obligations.

2:19:37 PM

SENATOR WAGONER inquired as to why representatives from BG Gas, Bechtel Corporation, Sempra Energy, and others are not present at this hearing if these companies plan to be an integral part of the project.

MR. WALKER answered that representatives from the Bechtel Corporation have appeared in Juneau to provide cost analyses and cost estimates in the past. However, he noted that Bechtel Corporation has concluded its role in terms of the application process. He offered to prepare an analysis of their cost estimates. He related that AGPA's relationship with Sempra Energy was terminated due to the lack of the availability of gas. He opined "that's really what this comes down to, is gas going to become available?" He highlighted that AGPA has an ongoing relationship with Sempra Energy in terms of the terminal in Costa Azul. He noted that AGPA has had a number of companies it has worked with for a period of time. However, no one has departed due to the economics of the project, he explained. Instead, the reasons for their departure are for other issues such as gas acquisition, he related. He opined that this is an unusual structure, that TransCanada is in the same situation of "trying to put together a project without gas is pretty challenging." However, LNG is an economic option. He explained that AGPA's purpose is to make sure that people are aware that the all-Alaska line has the economics and the structural advantages to go first, and not necessarily wait an undetermined period of time for another project to happen first. He offered that AGPA believes that "getting gas to Alaskans now is critical."

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SENATOR HOFFMAN posed a scenario in which the legislature desires more than one competitive applicant and votes the license down. He inquired as to what the modifications to AGIA would be required in terms of the all-Alaska project.

MR. WALKER answered, "That is a tough question because a lot is riding on this issue." He stated that AGPA has not examined AGIA from the standpoint of how to amend it to help the all-Alaska project. He opined that AGPA has viewed the project in terms of how it can work within the provisions of AGIA.

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SENATOR THERRIAULT related his understanding that the administration has received some criticism for the modeling that it prepared for an LNG project because of the size. He offered that a model exists that can be sized to different throughputs. Senator Therriault expressed interest in obtaining models for the LNG and asked what capacity should be requested, such as 1.5, 1.8, or some other capacity.

MR. WALKER answered that he would suggest that the administration model be based on 2.7, but that they may have already run that model, and if so, he offered that AGPA would like to have access to the model.

2:25:16 PM

SENATOR THERRIAULT recalled that Mr. Walker noted that the models and cells have been shown. However, he also recalled that Mr. Walker also mentioned confidentiality of the models. He inquired as to whether the AGPA's model is available or has been available to the administration or to TransCanada to review and examine the mathematics of the model.

MR. WALKER answered that the entire model was made available to the administration.

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SENATOR THERRIAULT asked, "If TransCanada has committed to an open season for LNG, is there a way to just let the market sort this out?", He opined that if AGPA put together all of the pieces for an LNG project and has a source of gas and the end market, AGPA could participate during the open season, bid on the capacity for the line to tidewater, and if all those "pieces fall into place then you're the winner." He surmised that if the pieces "fall into place in conjunction, at the same time, with the overland, then fine." However, he related his understanding that TransCanada made a commitment that if LNG is "the only thing that shows up" that TransCanada will follow through with developing the LNG project.

MR. WALKER answered, "We're almost there as far as the way you describe it." He offered that AGPA looks forward to putting together the pieces necessary to meet TransCanada's open season. However, he maintained that AGPA does not want to wait for a Canadian line to go before it can participate. He further maintained that once it is ready to proceed and has the shipping commitment, that AGPA will want to be able to participate.

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MR. WALKER referred to his last slide, labeled, "Way Forward Options." He opined that many of the risks can be shifted and shared among the value chain. "This is one that can't be, we don't think." He expressed that he's observed what has happened to the cost of energy in the past 12 to 24 months and cautioned that if nothing happens, that it represents a huge risk for the state. He highlighted that he compiled a book of 162 articles, including ribbon cutting ceremonies, studies, and incentives between 1987 and 2004, that provides a snapshot of AGPA's process. He noted the lengthy process was troubling since AGPA expected a project would "start the vehicle and off we go. And it didn't." He related that AGPA wants to make certain that this process is successful and that it thinks it has the solutions to move forward within AGIA. He reiterated that AGPA is not trying to disrupt the process or proceed ahead of anyone, but is just trying to bring gas to Alaska. He opined that if a project does not bring gas to Alaska, there won't be anyone left to benefit from it. He urged legislators to proceed with a project that is "right-sized" right now and not to wait for someone else with a bigger project. He offered that a lot of work has been expended, with failed efforts going back to the late 1980s. He stated that AGIA is a good process. He recalled that Commissioner Irwin said, "We need one good applicant." He opined that "we have a great applicant." He cautioned legislators to not let the process prevent a project from moving forward.

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SENATOR WIELECHOWSKI offered his appreciation for the efforts that AGPA has made to work to supply gas to Alaska. He inquired as to whether a vote to approve TransCanada's license would effectively preclude any other gasline because realistically Alaska does not have sufficient gas offtake for other projects.

MR. WALKER answered that it could, but he did not necessarily think it would. He offered that AGPA is working with the administration. He said that he hopes that a way exists for the state to move forward with TransCanada and minimize risks. He opined that if AGPA can reach that understanding, that he would recommend to the board to give unconditional support for the AGIA process. However, if approving TransCanada's license is going to delay the process, he opined that he did not think that the board could agree to the project.

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REPRESENTATIVE WILSON inquired as to the "decision tree" to decide whether or not the AGPA project would be included or excluded. She related her belief that many Alaskans look to AGPA to push, challenge, and ask the critical questions. She asked Mr. Walker to advise the legislature with respect to a decision tree prior to a vote on the TransCanada license.

MR. WALKER explained AGPA's decision tree such that AGPA desires to work with the administration and TransCanada and will report back to the legislature its efforts. He pointed out his good working relationship with both entities.

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REPRESENTATIVE KAWASAKI, with respect to a "Y-line" concept and whether the AGIA application would preclude the AGPA line, related that TransCanada, in its AGIA application, expressed a willingness to examine a third party LNG terminal if sufficient interest is expressed by shippers in an initial open season. Secondly, he inquired as to whether Mr. Walker could comment on the possibility of a TransCanada LNG terminal at Valdez and also on TransCanada's assumption of an increase in the initial project to 6.5 Bcf if 4.5 Bcf were committed to Valdez.

MR. WALKER recalled TransCanada's application and expressed concern that it would constitute a problem if a 6.5 Bcf commitment was required at an open season. He opined that Representative Fairclough was correct, that there will not be 6.5 Bcf at an open season. He said:

> What we are saying is if there's two, two and one-half, or three [Bcf], that there's not enough for a Canadian line, but enough for an all-Alaska line; that's what we want, we would like to have them build a pipeline to the terminal at that point. If we participated and had the pieces of the consortium of liquefaction, and all those pieces; I guess that's what we're trying to sort out.

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MR. WALKER referred to the slide labeled, "Which Project Goes First." He said he believes that the administration thinks that the TransCanada line will go first. He related that AGPA disagrees and maintains that the all-Alaska line will go first. He opined that the market will decide and should decide which goes first.

MR. WALKER referred to the slide labeled, "Way Forward Options." He said he believes that if AGIA is not successful, that the state should become very involved in the process as the pipeline owner. He related that he spent last summer in Houston, Texas, and that companies there felt the most productive model for a gasline is for the state to step forward as the owner. He said, "When the host government - their terms not mine - steps forward with an open season, you nominate." He opined that if this were a gold mine that needed a road, the state would build the road. He related that Alaska is unique. He offered his belief that if the AGIA process fails, that the most successful model is for the state, which has the financial resources and the equity to build the pipeline. He opined that it is not the obligation of the producers under the leases to build the pipeline. He said, "If a pipeline is available through an open season process, we believe there is a strong obligation for them to ship." He offered his belief that the best scenario is for the state to become a majority owner in a pipeline project and "get gas moving in Alaska."

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The committees took an at-ease from 2:44 p.m. to 2:50 p.m.

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CHAIR HUGGINS announced that the next order of business would be to hear a presentation by Harold Heinze, the Chief Executive Officer from the Alaska Natural Gas Development Authority (ANGDA).

HAROLD HEINZE, Chief Executive Officer, Alaska Natural Gas Development Authority (ANGDA), introduced Tony Izzo, who is under contract with the ANGDA for one year to assist with gas issues related to electric utilities. He offered that ANGDA, a public corporation of the state, is comprised of seven board members, who just held a board meeting yesterday in Anchorage in order to apprise members on the gasline issues before the legislature.

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MR. HEINZE advised that ANGDA was created through a voter initiative and was established by statute AS 41.41. The organization has a broad grant of power and authority over natural gas and "getting it to market" in a manner that benefits Alaskans. Since 2003, ANGDA has been working towards that goal. He noted that he will appear before the body again in Anchorage to present more detail. He further noted his presentation is focused on several issues of importance to Fairbanks including propane and natural gas. He continued:

> ANGDA believes the best decision that you as a legislature can make, is to promptly approve the AGIA license granted to [TransCanada]. We believe that will result in a circumstance where we have at least two pipelines competing to build a big pipe through and out of Alaska. And we believe, that in the long run, all the other issues that we can see related to in-state gas can be most successfully resolved in a commercial sense by dealing with both of those pipelines through negotiation and moving forward.

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MR. HEINZE referred to the first slide which is a map of Alaska. He pointed out a series of lines that are intended to convey ANGDA's long term point of view that the issue of natural gas from the North Slope is not an issue of one pipeline. He said, "It is an issue of many lines feeding in, feeding off, lots of destinations, lots of entry points." He opined that one vital consideration for Alaska is to think of the North Slope resource as a source of fuel. He surmised that when the pipeline is carrying about 4.5 billion cubic feet (Bcf) of gas, it will provide an excess of 50,000 barrels a day of propane. He said, "If we can think of everything we could ever think of in Alaska to do with propane, we might need 10,000 barrels a day, and the number might be closer to 5,000 [barrels] per day."

MR. HEINZE referred to the next slide labeled, "Connecting Alaskans To Their Natural Gas" and stated that yellow on the chart shows the estimated transportation of propone to Alaskans, who are not on a pipeline, but may be on a road system, a river system, or along the coast. He explained that as the pipeline would extend from the North Slope through the Brooks Range to the Yukon River, which is a likely avenue of commerce to move propane. Once the gas reaches the tide water it can be shipped along the coast to points such as Juneau, Ketchikan, and Kotzebue, he stated. He surmised that access to propane can offset residential energy costs. He opined that propane may be a good alternative fuel for rural Alaskans. He further opined that the reason to highlight this at this juncture is to illustrate that Alaskans don't have to wait for a pipeline to bring propane to those communities. He pointed out that those legislators who have examined the North Slope are aware in handling 8.5 Bcf/d on the North Slope, that an abundance of propane will be available. He noted that propane is used in the gas conditioning process as a refrigerant. He stated that if a wholesale facility on the North Slope was established, that some entrepreneurs might "find a way to very economically haul it down into this area and make it available." He surmised that alternative fuel might be very attractive, such that currently some companies have concluded gas contracts with Fairbanks Natural Gas, along with plans to build a liquefaction plant and bring gas to the Fairbanks area. He further surmised that "the economics have to be there to make propane work in a very similar sort of way." He highlighted that propane does not require "quite the level of sophistication to handle and move."

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SENATOR WIELECHOWSKI inquired as to whether Mr. Heinze could provide a cost estimate to heat a home with propane in areas such as Fairbanks or Bethel.

MR. HEINZE responded that ANGDA is currently working with the City of Tanana on a demonstration project to determine how to use propane in their community. He opined that a community may decide the best use is to use propane to provide cogeneration in the schools. He admitted that he did not know if propane is the best fuel to heat a home in Fairbanks. However, he pointed out that it may be the best thing to cook with or for power generation. He explained that the basis for economics on a British Thermal Unit (BTU) basis is that propane is like gas. He stated that in examining the value of gas in the North Slope compared to oil that the value is significantly lower, perhaps a 50 percent discount. He opined that if the propane can be transported reasonably and efficiently, "you can capture a large amount of that discount." Thus, the opportunity exists for a significant reduction in the total energy cost in terms of that alternative.

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REPRESENTATIVE SAMUELS stated that he would ask the same question that he asked of Mr. Walker [the representative from AGPA]. He inquired as to whether it would be better to build one plant at the Yukon, in Fairbanks, or in Valdez, and pay the distribution costs, or to build a plant in each location.

MR. HEINZE responded that propane is very easy to separate out of the natural gas stream. He explained that a small side stream off the pipeline would offer the ability to "sieve the molecules out, in that sense, by just simply cooling the gas." He elaborated that it is a liquid and that it is not hard to get in that form. He said, "Every compressor station along the pipeline; there will be propane available there because it's one of the first steps in conditioning the fuel to the turbine is to basically drop out hydrocarbon liquids." He surmised that the plants are fairly inexpensive. He highlighted that ANGDA will be working on a business plan and a technical plan to install a facility at Prudhoe Bay with the intent of creating a wholesale propane point. He continued:

> That plant may come from West Texas. We may be able to find a plant that is used to straddle a pipeline right now and would be very usable for this purpose. It is a fairly common practice to do what I'm describing in terms of propane.

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MR. HEINZE referred to slide three, labeled, "2006 Study Conclusions" and stated that the potential exists for a lot of petrochemicals since with a natural gas stream of an estimated

4.5 Bcf/d, over 50,000 barrels a day of propane and approximately 200,000 barrels of ethane, coupled with methane, are also produced. He referred to a study ANGDA provided members, prepared by the noted consulting firm, Science Applications International Corporation (SAIC), under contract by the U.S. Department of Energy. He explained that the study detailed Alaska's gas supply and demand and focused on residential and commercial, use as well as the potential value-added type of industries that might be achievable in Alaska. He noted that the conclusion is shown on the graph in slide three. He further explained that the height of each of the bars represents the highest price that an entity could pay for gas and still make a reasonable decision. He highlighted that in the case of commercial residential, at the price shown, one is better off to use gas than, for example, to burn fuel oil. He noted that those industries that fall below the "market price bar" are industries that could not afford to remain in business.

MR. HEINZE referred to slide four, labeled, "2008 Updated Study" and stated that ANGDA hired the same team to rerun the results using current oil prices. He pointed out that the results show a dramatic change. He continued:

> Nobody is going to build a petrochemical plant in Alaska based on that portrayal, but what it should make clear to you is the assessment of whether there is a potential for the use of ethane, methane, propane, butane, in Alaska in a value-added sense, or even methane in a value-added sense, you should be willing to think about the fact, that in a high priced world, a high oil priced world, it's very attractive. And the other part of that graph you might notice is that all of a sudden the things that are commercially attractive now are adding up to a number of over a billion cubic feet per day.

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MR. HEINZE noted that ANGDA's consultant will be in Anchorage to answer questions in more detail.

MR. HEINZE then remarked:

> The important thing to realize is that this represents an opportunity measured in many billions of dollars of investment in tax base for a local community. It represents thousands of jobs and it represents

> billions of dollars of annual income so the stakes here, in terms of making sure we preserve these opportunities for the future, is key.

MR. HEINZE recalled Representative Neuman's questions about "value-added" and stated that one of the big concerns expressed was to ensure the state does not lose control of the natural gas liquids (NGL). He stressed that retaining NGL is important "even if it is not for another 10 years or 20 years." He continued:

> Basically, the answer to that is, it's going to be done through the commercial arrangements and the best way to make those commercial arrangements is for the state through an entity, some sort of commercial entity, it may not be us, but some sort of commercial entity to participate in the design and building of the pipeline to assure that we preserve the processing rights in the state.

MR. HEINZE offered that then the state would need to purchase the "molecules" from "people who have the gas." He highlighted that ANGDA intends over the next six months to a year, to use its funding to study in-state issues to "flesh out" the potential for these industries and locations. Although this study was performed for Cook Inlet, he surmised that [a] petrochemical [industry] might very well work for Fairbanks due to the proximity of the pipeline and the Alaska Railroad to transport the resulting product to the Port of Anchorage for further shipment. He acknowledged that the legislature engaged a consultant to examine the potential gas-to-liquids conversion on the North Slope.

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REPRESENTATIVE GARDNER related her understanding that ANGDA supports the TransCanada proposal under AGIA and urges the legislature to endorse it, and that the state should retain processing rights to the NGLs. She inquired as to whether Mr. Heinze could speak to how the current proposal before the legislature helps the state to retain processing rights or if it interferes with that effort.

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MR. HEINZE responded, "The encouragement to grant the AGIA license is in the belief that the best commercial terms are going to be struck if there are two pipelines both trying to move North Slope gas off." Mr. Heinze stressed that ANGDA is "very comfortable working with both of the sponsor groups." He opined that some advantage exists in having two groups competing. He highlighted his belief that it is normal for pipelines to allow themselves to "straddle." He posed a scenario in which a company builds a plant, perhaps in Delta Junction, in which a side stream is "pulled off the pipeline, certain molecules are removed; the rest are put back in." He suggested that the state would only need to ensure the tariffs and other specifications of the pipeline allowed that to happen. He further opined that if the state can get one of the pipelines to agree, that the other one would agree, too. He said, "It is our intention, once the license is granted to engage both these pipelines as closely as we can, and try to find commercial terms on the volumes of in-state gas." He noted that ANGDA has been working with the utilities to prepare for a "soon" open season. He said, "And that's the key when you have to strike, in terms of all these relationships. If at the open season you are prepared to make long term commitments for volumes, you can do it and the deal will work out."

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SENATOR HOFFMAN recalled discussing utilizing propane in rural Alaska. He offered that the Institute of Social and Economic Research (ISER) has just completed a study that examined the high cost of diesel to provide heating oil in rural areas and showed that the largest cost is for transportation costs. He expressed interest in analysis of the market price in rural Alaska as compared to the use of LNG. He recalled Mr. Heinz's comments on propane's use in cooking and said, "I know that can be done." However, the problem in rural Alaska is obtaining reliable, consistent low-cost energy. He recalled Mr. Heinz's comments on connecting all of Alaska to natural gas and opined that goal is achievable. However, the transportation costs remain a problem, he related. He opined that rural Alaska will face the same transportation costs for natural gas as it currently does for propane and diesel. He pointed out another problem to consider in using propane in rural Alaska for heating homes is storage capacity in many of the villages. He speculated that it would be cost prohibitive to build the infrastructure necessary for storage capacity. He related that the fuel plant in Bethel was just expanded for over $10 million dollars. He inquired as to whether Mr. Heinz would comment on propane as a viable source for heating homes in rural Alaska.

MR. HEINZE recalled ANGDA performed its own study, not dissimilar to the ISER recently completed. He offered that ANGDA found that each community was different. He opined that in some communities "you are not going to have an impact." However, he noted that in some smaller communities, the potential existed to change the paradigm with respect to energy and energy costs. He further opined that could happen with the introduction of an efficient propane transportation storage system. He related that a system might be as simple as a big tank fitted inside a frame that is moved just like a container, and is rotated when it becomes empty. He related that ANGDA believes that the issue will be successfully addressed by entrepreneurs. He said, "If there is a plentiful supply of propane, at a reasonable price, we believe that people will find a way to move it and move it very efficiently." He related his own experience with a cabin in Talkeetna and three vendors compete to provide his propane needs. He opined it may take a generation to accomplish the goal of connecting Alaskans to their natural gas, the "yellow lines" [depicted on the map in slide two].

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MR. HEINZE, in response to a question by Senator Elton, responded that when he spoke of two competing pipeline projects, he was referring to the competition between the Denali project and TransCanada.

SENATOR ELTON observed that the demand for gas in Alberta may force the state to ship "the liquids" outside Alaska.

MR. HEINZE agreed. He predicted that gas prices will be cheaper in Fairbanks than in Anchorage once the large pipeline is flowing, and prices may even be lower than propane costs in Juneau. He opined that the location for NGL plants is a commercial decision. He offered that if sufficient quantities of ethane, propane, butane, in addition to the methane exist, that there comes a point when the pressure in that system in Alberta will drop to 1,000 pounds. At that point, the propane certainly has to come out of the pipeline, he surmised. "You have to get to a lower BTU value gas and you have to be able to operate faithfully at that lower pressure," he said. He acknowledged that there are people who want to use the ethane, for instance, in petrochemicals. He noted that those people may want to bid, but it doesn't mean that they can't compete with those prices. He referred to the chart on slide four and said:

What is interesting on the chart is that the bars extend so far above some perception of price. Now, again, I'm not arguing whether any specific price on there is right, but, that's not marginal. There's a lot of room to work with on that chart and that's the part that we find very encouraging, is that, certainly, if Alaska, at some point was faced with a decision [to pay] a few cents more in Alberta versus having an industry that was thousands of jobs and billions of dollars on the tax rolls, I think we could probably get to the right answer on that one. But, again, we don't have to make that decision now and we're not going to know what that decision is, till people like the DOW Chemicals of the world ... show up here to build a plant. Because, remember, the idea here is we're not exporting the raw material. We're building the plant here in Alaska and creating the jobs and adding to the tax base. And under those kinds of circumstances, I think the calculation of value is not going to be that difficult.

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SENATOR WAGONER related his understanding that ANGDA was supposed to provide an all-Alaska pipeline project as well as LNG. He pointed out that Mr. Heinze is now talking about a spur line off a pipeline, using propane to energize rural Alaska, and to use ethane in other petrochemical industries. He inquired as to the reason that ANGDA has veered from its original purpose.

MR. HEINZE answered that ANGDA was given a "first year task" under the ballot initiative to determine the feasibility of an LNG project, which it did, although it took 18 months instead of a year complete. He noted ANGDA published a report that basically concluded that LNG was economic, competitive, and feasible. That's usually at least three measures of whether you ought to think about doing something or not, he opined. He explained that ANGDA also concluded that a project of the magnitude of 2.0 Bcf/d was a bigger project than the organization could tackle. Thus, ANGDA reviewed some smaller projects, some of which are still viable, such as a spur through Glennallen. He further opined that that type of project leaves open the possibility in the future of a short extension down to Valdez, which is in the best interest of the Alaskan consumers. He explained that in reviewing the analysis of a spur, which he said he'd later discuss, that ANGDA continued the spur to Beluga, across from the Kenai LNG plant. He opined that if gas is plentiful in Cook Inlet, it is possible the commercial owners of that plant would decide to expand. He explained that under the statute, the acquisition of natural gas from the North Slope and its delivery to tidewater for shipment to market by the authority is an essential government function of the state. He related the law supports the ANGDA mission as being of great importance to the state. He highlighted that ANGDA's plan on LNG recognizes the fact that the AGPA has been "carrying the ball" on LNG and has worked with numerous companies and sense their interest in building an LNG plant in Valdez or Kenai. He related that ANGDA has discussed with ConocoPhillips and Marathon Oil Corporation about the potential of expanding that plan. "I hope when we have an open season; I hope somebody shows up from that side of the world, but if they don't show up we'll just go on and do the best we can," he said.

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SENATOR WIELECHOWSKI expressed his surprise to hear a "ringing endorsement" for the legislature to support TransCanada. He asked for the reasons for ANGDA's support for TransCanada given the length of time to obtain in-state gas from the TransCanada proposal, which he related is when the full line is completed in 12 to 15 years or longer, and given the treble damages, which prevents the state from supporting more than a 500 million cubic feet (mmcf) line per day.

MR. HEINZE related discussions ANGDA had at its board meeting about the treble damage issue. He said, "That is the assurance that is in the AGIA law that, when the state grants a license, it really intends to be a good partner and it is not going to 'support any competing projects.'" He related that raises concern since ANGDA is funded by the legislature.

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MR. HEINZE explained that ANGDA filed an AGIA application for in-state portion. Additionally, ANGDA filed a proposal that would tack onto the TransCanada proposal, and "we also filed one that turned out to be the port authority's proposal." He said he thought that the TransCanada and Denali projects both recognize the proposed ANGDA spur line project enhances their big project by creating additional markets and creating circumstances that are very favorable for the construction of their project. He said he believes that once the license is granted, TransCanada would stipulate that ANGDA is not in competition with their project. He said, "That's my approach, my thinking if you will, to handling that is to do that on a commercial letter of understanding basis between the parties."

SENATOR WIELECHOWSKI inquired as to whether ANGDA would not be in competition [with TransCanada] if it stays under 500 mmcf or did Mr. Heinze think that the ANGDA project would go higher than that.

MR. HEINZE answered:

> I don't believe I'm in competition. I believe I'm enhancing their project if I use up their expansion capacity in the State of Alaska. If instead of a 4.5 Bcf/d project from Prudhoe Bay to Canada, they end up with a 6.0 Bcf/d project to Delta Junction, and 4.5 on into Canada, their project is better. They make more money; we all pay lower rates. I think it's a win, win, win. ... All I'm arguing is that, in a commercial sense, I believe that people act in their own self-interest and every way I have looked at the issue it is in their self-interest to work with us in that regard.

MR. HEINZE continued. He opined that the spur line can be built as a "free built" and that it could be built in Delta Junction. He further opined that the only reason the project cannot be built immediately is that it depends on if, and when, the "big project" will be built. He said, "As a number of bankers have observed to me at times, there is no gas in Delta Junction and that's absolutely right." However, once people believe there will be gas in Delta Junction, then it is "not illogical" to build a small pipeline from Anchorage to Glennallen and north to Delta Junction, he noted. He opined that it is possible to gain advantages by starting first.

MR. HEINZE said:

> If ANGDA is able to bring to the table a pretty strong marketplace in the Cook Inlet area then I think it's entirely appropriate to take TransCanada up on their offer of equity ownership even if people make the shipping commitments. And again, our objective is to try to position things so that our local utilities are making the shipping commitments and as such, I think we ought to play the 'be involved card' and if for no other reason than to try to influence some of the

design and other issues so that the northern part of the pipeline is built first and we accelerate.

MR. HEINZE continued. Additionally, with respect to timing, once the project is moving forward, enhancements and improvements can always be made, he noted. He offered that providing propane in Fairbanks may not be a long-term solution, but it could be a good bridge.

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SENATOR MCGUIRE related her understanding that the law voters passed that created ANGDA was done so to essentially provide Alaskans with natural gas. However, AGIA establishes a statutory framework such that once the license is issued to TransCanada, the state is prohibited from offering assistance to competing projects above 500 mmcf. She pointed out that nothing has been reduced to writing specifically for the 500 mmcf. She related a scenario in which the legislature approves the license, and a company approaches Mr. Heinze to provide gas to Alaskans, but the project exceeds 700 mmcf. Given the legal tension, she asked what Mr. Heinze thought ANGDA's obligation and legal commitment would be as the "gas ombudsman." Further, could such a project be denied by ANGDA.

MR. HEINZE opined that as long as the proposed project enhances "the big pipe," which is basically the same proposal from TransCanada and the Denali project, it is valuable "to talk to both of them." He further opined that ANGDA cannot influence discussions or what ultimately "they commercially work out." However, he pointed out that ANGDA has the ability to "talk to both of them." He said: "Let's just imagine a conversation, just to lay it on the table, where {TransCanada] says, 'You know, we'll just forget about this compete thing if you'll just deal with us exclusively.'" He offered that in a commercial sense, he would answer, "I'm willing to consider that. Here are some things I need to have though; it's just a negotiation." He opined that the legislature performed well with AGIA, and has offered TransCanada reasonable assurances, but at this moment, "This is coming down to trying to make a commercial deal work." He further opined that while the legislature has an important role, "politics isn't going to get a pipeline built." He said he thought that the legislature has the opportunity to enhance the framework of this decision, but that it is "not your decision whether to build this project or not. The commercial world is going to do that." He urged the legislature to try to get to that point as quickly as possible and "find the right combination of things that works for Alaska in this whole deal."

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SENATOR MCGUIRE stated that she did not disagree that it is a commercial decision. However, she pointed out that the tension exists since ANGDA is a public advocate in addition to being in a position to also consider the commercial aspects. She noted that ANGDA has a public obligation and "we as policy makers have taken that same mode." She offered that she "hopes everyone will come together." She stated that she did not want to "stand in the way," but also does not want to "look back two years from now" and realize that the legislature, and ANGDA, is in a position where they have debilitated their ability to "deal with the commercial world and get something done."

MR. HEINZE related that he recognizes the tension and the difficulties in the decision making. The legislature has the opportunity to grant or not grant the AGIA license to TransCanada. He said that ANGDA and its board believes the right decision is "thumbs up." He acknowledged a great deal will need to be worked through over time, but he reiterated his belief that it is still the best decision at this time. He stated that ANGDA and its board will do everything it can in that context. He opined that it will take considerable trust to make it work. He said, "I have no reason to believe, based on my conversations with [TransCanada], that we can't find a way to work forward together." He noted that he is equally comfortable discussing things with ConocoPhillips and BP and the Denali project. He expressed a willingness to work with a third company that indicates its desire to sell gas.

3:37:50 PM

SENATOR STEDMAN referred to a previous slide that projected gas to Alaskans. He surmised that the map indicated that Fairbanks would have access to gas and Anchorage would either have a line or would have access to more gas from Cook Inlet. He said, "When we are looking at Western Alaska or coastal Alaska, we're looking at a little different animal." He inquired as to whether ANGDA has reviewed the reasons that a prior project undertaken about10years ago was abandoned. He explained the project would have "gasified" Southeast with, he recalled, compressed natural gas from British Columbia. He further expressed interest in shipping costs and inquired as to whether Mr. Heinze could discuss the value of the gas. He also recalled

Senator Hoffman's comments on fuel costs in rural Alaska as contingent on transportation.

MR. HEINZE agreed that any pipeline would come through Fairbanks, which is great for Fairbanks. He opined that it is not a given that gas will be brought into Cook Inlet; due to the size of the market, it may not happen. He highlighted that once gas and NGLs are at tidewater, all kinds of flexibility exists, such as compressed natural gas or LNG. He also pointed out that propane air mixtures are used throughout the United States. He cautioned that the decisions don't have to be made today, but that it is important to move gas to tidewater in order to serve Southeast Alaska. He opined that ANGDA's mission "isn't to force these things beyond commerciality. We try to be very sensitive to the fact that these projects have to make economic sense and I believe that is what you have charged us to do."

3:41:27 PM

SENATOR STEDMAN inquired as to whether Mr. Heinze reviewed why that venture failed.

MR. HEINZE answered that ANGDA studied marine distribution of propane about three years ago and concluded some "marginal type things." He offered that the legislature has provided funding to provide answers based on current prices. He predicted that it will be very favorable to consider alternate energy sources with the price of oil ranging from $120 to $150 [per barrel] and continuing to rise.

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REPRESENTATIVE HAWKER related that he has been listening to the discussion and said he felt somewhat unsettled. He stated that the vital, critical, core function that ANGDA is statutorily charged with is the creation of in-state value; "getting gas to Alaska for Alaskan use both in residential consumption, individual, and value-added processing." He pointed out that the legislature appropriated ANGDA substantial funding to pursue and develop the body of knowledge and a greater understanding of ANGDA's ability to deliver in-state value-added utilization of Alaska's natural gas resources.

REPRESENTATIVE HAWKER said that he agreed with Mr. Heinze until he heard that ANGDA is definitively endorsing a project that if it moves forward would contractually obligate all of Alaska's gas, with the exception of up to 0.5 bcf/d, out of state and "down the Canadian line." He related that he heard some thorough answers from the administration that said they gave a lot of thought to that 0.5 bcf/d and they believe that will take care of Alaska's needs forever, into perpetuity. However, he reiterated his concern with ANGDA's vision in that it is willing to commit Alaska's gas into perpetuity without the assurance that the state can know what its gas needs will be in the next 10 years or in 50 years. He said:

> You said the answer is, don't worry about them, they'll just say, "We'll just drop this quote 'compete thing'; we're not going to worry about it." Given that TransCanada needs this gas so badly in their system, and it is a contractual obligation ... we have established, I guess, I'm very confused with that answer. If you could somehow convince me that number one, they would be able to and willing to just, and I'm quoting you, you said, "just forget about this compete thing," and secondly, how does that square with their need to replace their declining ... throughput in Canada so they absolutely have to have this gas to maintain the lower tariff levels expected by their Canadian customers?

3:46:37 PM

MR. HEINZE responded that the AGIA law says, "If before the commencement of commercial operation" so the whole treble damages things goes away once the operation starts. He offered that the day after operations start, that the state is free to "invent 17 competing projects under the law." He inquired as to whom in this case is triggering this provision. He opined that if the legislature grants the license to TransCanada that the only one who really has the right to come forward is TransCanada and if they have stipulated as to the conditions to promise to "keep the flag in their back pocket," that seems reasonable in terms of trying to work the way forward on this. He further opined that having the TransCanada and the Denali projects both moving forward places the state in a strong position in terms of its in-state needs. He related that all the analysis ANGDA has ever performed concludes that "for Alaska to be serviced by a big pipe, then putting the gas into a small pipe is the best circumstance for the Alaskan consumer." He noted that it is important that the "big pipe happen" because that is the state's best chance for long-term low cost to consumers. He said, "I'm not asking you to endorse the project. I'm simply asking you to grant a license and allow the process to move forward." He maintained his belief that once the license is granted, the process is a commercial process that depends on the market. He opined that the idea of competing pipelines is not unusual and that terms and inducements are often offered that are reasonable in a business sense.

3:49:35 PM

REPRESENTATIVE DOOGAN, with respect to supplying gas to Fairbanks, pointed out that price and availability are equally important. He posed a scenario in which North Slope gas cost twice as much as diesel in Fairbanks; in that situation it would not help Fairbanks' energy crisis even though the pipeline might be in close proximity. He inquired as to whether Mr. Heinze could discuss the reasons that North Slope gas is likely to "stop at commercially reasonable terms in Fairbanks or Anchorage, or anyplace else in the State of Alaska, rather than shooting down whatever big pipeline it ... starts out on to whatever market the rest of that gas goes to."

MR. HEINZE described a situation in which Alaska could purchase gas from a big company with North Slope gas, who is interested in shipping it to Alberta and other points, but also is interested in providing gas to Fairbanks. He said, using a hypothetical $5 tariff to go from the North Slope to Alberta, that whatever the price is in Alberta, deducting $5 provides the value at the wellhead in Prudhoe Bay of gas delivered to Alberta. He related that if Fairbanks offers one cent more than the number at the wellhead, but the cost to ship that gas to Fairbanks is $2. Thus, gas in Fairbanks would cost $3 less than in Alberta, he offered. Furthermore, he observed that the legislature can pass a gas tax provision to reduce the severance tax on gas used in Alaska by Alaskans. On the other hand, he cautioned that a smaller project, that is not linked to the outside market, may mean that consumers in Fairbanks would pay the competitive alternative price and are locked into it. He said, "And that's one of the things you are trying to break by bringing a big pipeline down through the spine of the state, is to break that paradigm."

CHAIR HUGGINS offered that Mr. Heinz brings a lot of experience, passion, and drive to the hearings. He said, "Many of us in this room have confidence in what you say and what you have done, and more important, what you are going to do in the future."

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REPRESENTATIVE KELLY related his understanding that the right timing for a gas pipeline seems to be now. He inquired as to what Mr. Walker, representing APGA, "needs" from the legislature.

MR. HEINZE reminded members that gas was plentiful in the Cook Inlet for a long time, but that in the past five years concern about supply availability has risen. Thus the North Slope gas is important. Secondly, price provides strong motives for "the in-state part." He said that his view of LNG is that it offers a long term opportunity "to help pay the bill." He opined that LNG is a logical thing to pursue, but that he cannot advise whether it would be better pursued in Valdez or Kenai, or the names of the companies involved. However, he urged legislators to allow companies come here so that they can decide if they are willing to put the effort forward. He opined that in his discussions, he has always noted that it is the company's responsibility to make the business proposal. He said, "The economy, the commercial aspect here is not what I say, or what Mr. Walker says, frankly. It's what those entities say, those commercial entities." He highlighted that the legislature has been respectful thus far, but should continue to let the companies know they have a forum but they must make the offer.

3:58:24 PM

REPRESENTATIVE KELLY referred to TransCanada's concession in making the commitment to the Y-line approach, and asked whether AGPA's proposal is better off, or if AGPA is better off alone.

MR. HEINZE said he believes that TransCanada has attempted to reach as far as they could in terms of commercial promises, that the terms [offered] are reasonably good, and their willingness to entertain the Y-line notion indicates that a commercial transaction exists that "works for everybody." He stressed that the timeliness is key. He said:

> I would be derelict if I didn't mention that ANGDA, your public corporation, is in the field right now doing wetlands determination on 370 miles of pipeline. Thank you. We've got more "boots on the ground" right now than anybody's pipeline in the state. And that's what it is going to take, is that kind of aggressiveness, and that's why we want to move beyond frankly, the legalities and the politics, and let's

get to it and let's just get building something. And that's where I'm at.

4:00:25 PM

CHAIR HUGGINS announced that the final order of business was to take up the ENSTAR Natural Gas Company presentation.

4:01:54 PM

GENE DUBAY, Senior Vice-President, Chief Operating Officer, Continental Energy Systems, introduced Curtis Thayer, Director, Corporate & External Affairs, ENSTAR Natural Gas Company (ENSTAR), and Andrew White, Manager, Business Development & Revenue Forecasting, ENSTAR. He informed the committee that the team would select slides from the PowerPoint report in order to be brief.

CURTIS THAYER, Director, Corporate & External Affairs, ENSTAR, explained that ENSTAR was established in 1961, is based in Anchorage, Alaska, and serves approximately 345,600 Alaskan customers through 128,000 meters from Ninilchik to the Big Lake area, with 3,100 miles of distribution and transmission lines.

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MR. THAYER further explained that ENSTAR has a direct financial impact on Alaska's economy at over $300 million, and employs 174 fulltime workers and 230 workers during the summer season. He noted that ENSTAR is the number one in size of Alaska's utilities and has 450 miles of transmission lines and 2,700 miles of distribution lines in Alaska. He noted that its sister company, Alaska Pipeline Company, has expertise in engineering and construction with 45 years of experience in Alaska. He offered that ENSTAR has constructed and is operating 450 miles of transmission lines, including a 20 inch line across the Cook Inlet called the Beluga Line, and 2,700 miles of distribution lines in Alaska, which represents 75 percent of all gas transmission pipelines in Alaska and 100 percent of the distribution mains in Southcentral Alaska. He explained that its expertise is in compression plant engineering and construction, pipeline engineering, environmental/permitting, and construction management.

4:07:25 PM

MR. THAYER referred to a slide labeled, "Southcentral Gas Distribution, that illustrated transmission lines owned and operated by ENSTAR, and the natural gas systems owned by producers. ENSTAR transmission lines circle the inlet by 270 degrees. On the west side of the inlet, the Beluga Line comes around Knik, Wasilla, and Palmer into Anchorage. From the Soldotna and Kenai area, there are two lines that cross the Knik Arm and come into Anchorage. There is also a small line going to Girdwood and Whittier. He noted that ENSTAR owns and operates the Kenai Kachemak Bay pipeline for Marathon Oil Corporation and ChevronTexaco Corporation that runs from Ninilchik to Clam Gulch up into the Kenai Peninsula. The slide also illustrates gathering lines and the gas fields in Cook Inlet. Mr. Thayer offered to meet individually with legislators to discuss the current supply contracts or price structure on the contracts.

4:08:36 PM

ANDREW WHITE, Manager, Business Development & Revenue Forecasting, ENSTAR, referred to slide 14, labeled, "Historic & Projected Natural Gas Production" for the Cook Inlet and pointed out the precipitous falloff from 2010 to 2030. He informed the committees that the projection of this falloff has led ENSTAR to seek gas contracts with ConocoPhillips Alaska, Inc. and Marathon Oil Corporation through 2013. In addition, ENSTAR is looking into the Foothills Unit for a natural gas pipeline from the Foothills to Southcentral Alaska with a spur connecting to Fairbanks, he related.

MR. WHITE referred to slide 15 labeled, "Foothills Unit Area Map" that shows the location of the Gubik Field, which is the location of the potential gas supply for the Foothills Pipe Lines Ltd. pipeline or the ENSTAR Line to Southcentral Alaska.

MR. WHITE referred to slide 16, labeled, "ENSTAR Line" and stated that the slide portrays what the ENSTAR line would look like and noted that it is independent of other pipelines. The ENSTAR Line would be 690 miles in length, pass through Fairbanks, and has the potential to carry additional gas if discoveries of natural gas materialize in the Yukon Flats or the Nenana Basin.

4:10:36 PM

CHAIR HUGGINS inquired as to whether Mr. White was referring to the pipeline commonly referred to as the "bullet line."

MR. DUBAY answered that ENSTAR refers to this line as the ENSTAR Line.

4:10:48 PM

MR. WHITE referred to slide 17 labeled, "Pipeline Route & Cost" and offered that the costs have been broken out into two main costs, with the costs from Cook Inlet to Fairbanks for approximately 320 miles along the Parks Highway route estimated at $970 million, and from Fairbanks to the Foothills route for approximately 370 miles along the Dalton Highway route estimated at $2.3 billion. He opined that the difference in cost is due to the higher level of complexity for installing pipe, and the logistics of transporting construction materials. He noted the total estimated cost of the project is set at $3.3 billion with a projected project timeline of five to six years.

4:11:51 PM

REPRESENTATIVE SAMUELS asked how many additional miles would be involved if ENSTAR needed to go to Prudhoe Bay in the event that the Foothills Unit did not work out and it was commercially feasible to obtain the gas at Prudhoe Bay.

MR. WHITE estimated 90 miles from [the Foothills Unit] to Prudhoe Bay. However, he noted that ENSTAR has not estimated the cost structure for that change.

REPRESENTATIVE GUTTENBERG observed that the route approaches the southern end of his district crossing into the Denali National Park and Preserve area (Denali Park). He inquired as to whether ENSTAR has approached the U. S. Department of Interior, National Park Service (NPS), or if it is possible to avoid Denali Park.

MR. DUBAY confirmed that ENSTAR has approached the NPS. However, he said he believed it was possible to avoid the national park, although it may increase the cost incrementally.

4:13:04 PM

REPRESENTATIVE GUTTENBERG expressed his concern that the route crosses scenarios such as mountainous terrain and significant obstacles.

MR. DUBAY agreed, but offered that the initial review indicates that avoiding Denali Park would cost a $50 million increment, which is included in this cost estimate.

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SENATOR THERRIAULT noted that Anadarko Petroleum Corporation (Anadarko) is drilling in Gubik and inquired as to what quantity of gas would make the ENSTAR project workable.

MR. DUBAY expressed his belief that it would be ideal to have 3.5 trillion cubic feet (tcf). He opined that ENSTAR would ultimately base its decisions on probabilities, but that "at the end of the day" it would be good "to have 3.5 tcf of gas at the other end of the line."

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SENATOR THERRIAULT inquired as to whether Anadarko has given any indication when information would be released.

MR. DUBAY responded that ENSTAR will hold a discussion in July with Anadarko with regard to its drilling results for the past winter. He offered his belief that another drilling program would occur this coming winter. He offered that ENSTAR does not anticipate that in July 2008, Anadarko will have information that proves [the existence of] 3.5 tcf of gas.

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SENATOR THERRIAULT referred to slide 17, to the cost estimates, and inquired as to what level of certainty ENSTAR has with the estimated $3.3 billion and if the cost projections were based on all steel pipe, or if composite pipe would be used.

MR. DUBAY answered that the costs are based on all steel pipe. He offered that he anticipates that the cost estimates will be better defined over the next eight months. Currently, he noted, ENSTAR is working on further developing the route, the costs, the permitting requirements, and environmental requirements associated with the project.

4:16:09 PM

REPRESENTATIVE FAIRCLOUGH inquired as to whether ENSTAR is in support of AGIA, in competition [with AGIA], or whether this project complements AGIA.

MR. DUBAY responded that ENSTAR is not competing with AGIA. He further said:

> We believe that this project fits within the terms of AGIA process. We're looking at a project of half a bcf a day. We're not looking for a state subsidy. So, we think the project is stand alone. We've talked to Conoco and BP with regard to the Denali project because it is logical that this project, the pipeline, will be close to a larger pipe. And that we want our engineering not to conflict with the engineering on another pipe. So, they've agreed to share data. As we mention, one of the pinch points, ... if the pipelines are both coming through this room and we figure this is the best corner for our pipe, we don't want to find out a year down the road that Conoco, BP, or TransCanada, also think that's the best corner. Perhaps, we should work that out before we start to lay pipe so our conversations with both groups to date, have, I think that both groups would say that this is not a competing project and is a complementary project.

MR. DUBAY, in response to a question by Representative Fairclough, answered that what he is providing is informational.

4:17:41 PM

REPRESENTATIVE ROSES recalled that Mr. Dubay indicated that the pipe design would allow for expansion. He inquired as to whether the 0.5 bcf includes the maximum expansion capability or if it is the initial anticipated volume with the capability of later expansion.

MR. WHITE offered that he would be able to discuss the "numbers" for multiple fields including Cook Inlet, the Foothills, the Yukon Flats, and Nenana. He said that he did not think either the Yukon Flats or Nenana are contemplated as being source points for the larger pipeline to the Lower 48 due to cost.

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REPRESENTATIVE ROSES stated that he is awaiting clarification from the administration and TransCanada as to their definition of the 0.5 bcf. He said he wasn't sure if it meant the original volume or its capability for expansion.

4:19:40 PM

MR. WHITE referred to slide 18, labeled, "Advantages of the ENSTAR Line. He explained that ENSTAR hopes to bring gas to market by 2014, assuming that the Foothills exploration is successful. He opined that is five to six years ahead of any other project for a domestic supply of natural gas. He said:

> In this situation, we believe that Alaska controls its own destiny for source of gas and competitive gas to the various markets – Fairbanks, Anchorage, and Southcentral. It provides us a little bit more certainty as the utility owner of gas supplied to our markets with, of course, Cook Inlet being a declining production rate; this provides us another secure supply of gas. We don't believe that this is a mutually exclusive project with a pipeline to the Lower 48. It's very complementary in terms of sourcing gas out of areas that are not contemplated in AGIA. And as stated earlier, we think both [TransCanada] and Denali group have indicated they think we're okay when we are under 500 [mmcf]. One of the important things one of the things we've got going is that we think this will revive the Agrium plant in Southcentral. Right now, we all know it's mothballed and with competitive gas prices, and of course that will be determined over time, there is a possibility, by time we get this up and running, that they will be able to bring the plant back online. And, you know, of course that will bring jobs back to Southcentral along with continuation of an LNG plant of some type, either the existing one owned by Marathon and ConocoPhillips maintaining its current status of export, or some other producer doing a similar thing.

4:22:20 PM

CHAIR HUGGINS asked Mr. White to project ENSTAR's open season based on its timeline.

MR. DUBAY responded that if ENSTAR obtained the information from the producers, that perhaps one year from today.

MR. WHITE explained that natural gas is a "feed stock" for petrochemical industries, such as plastics. He opined with the amount of volume ENSTAR expects to "put into the line" there is the possibility of small operations on an industrial scale in the state, such as specialty-type plastics. He offered that one of the things ENSTAR and Anadarko identified is that since it's an in-state supply of gas, the gas is subject to lower tax burdens. He highlighted that this would be a great encouragement to the project and to the producer on the Foothills.

4:23:47 PM

SENATOR WIELECHOWSKI related his understanding that the Gubik Field contains dry gas. He inquired as to whether ENSTAR has some knowledge that liquids could be pulled off of this gas.

MR. WHITE responded that natural gas or methane is actually a feed stock in plastics, "it is used there, not only the heavier gas liquids but also methane."

4:24:19 PM

SENATOR WIELECHOWSKI related his understanding that this project would result in lower prices for Fairbanks. He inquired as to what price Anchorage can expect to pay if the gas is currently at $6.87 per mmcf.

MR. WHITE answered that ENSTAR envisions something similar to an indices-based cost of gas.

MR. DUBAY interjected that almost all gas contracts are index related. Therefore, whether the gas originates in the larger line or this line, he anticipated that ENSTAR would have an index based contract. He noted that ENSTAR has not negotiated the contract yet, but anticipates that it would begin as soon as ENSTAR's current contracts, that are before the Regulatory Commission of Alaska (RCA), are dealt with.

4:25:24 PM

SENATOR WIELECHOWSKI inquired as to whether he referred to a West Coast index or the Henry Hub, which is currently around $12.

MR. DUBAY responded, "I think, frankly, the index will be less than that. My opinion is the index is going to come down and it may be the index minus the tariff, something of that nature. ... I would expect an index-based contract."

4:25:53 PM

SENATOR WIELECHOWSKI inquired as to whether Mr. Dubay would predict that Anchorage can not expect lower cost gas than what it is paying now.

MR. DUBAY replied:

> It depends on where the index goes. I would believe that we will end up with an index-based contract and the gas price will follow the index. You know, we may have an opportunity to bring, to get some discount. Historically, what you see is that everything is being priced now in an index unless you have a really, what we call a flat profile. If you are taking the same gas on a daily basis, every day, you can get a slightly better price than a company like ourselves, who takes ten times more per day in the wintertime than we do in the summertime because there's more infrastructure is required to deliver the gas under those scenarios. Just like buying a plane ticket, if you want to go to New York City once at Christmas, it's going cost you more than if you go every week for fifty weeks and you can avoid two weeks. You can buy those tickets ahead of time. So our profile ... will still be an index-based cost with maybe some discount, or some premium depending on the profile.

4:27:19 PM

SENATOR WIELECHOWSKI recalled Mr. Heinz said that "A big pipe is our best chance for low-cost gas." He asked whether Mr. Dubay agreed with that statement.

MR. DUBAY answered that he did not think the size of the pipe will have an impact on the gas. He said he thought gas prices will be based on an index-based price whether "it's a 48 inch pipe or a 20 inch pipe."

4:27:50 PM

SENATOR FRENCH inquired as to how North Slope gas sold in the Anchorage basin could "ever beat Cook Inlet gas given the obvious differences in transportation costs," despite the index. He clarified by asking whether Cook Inlet gas would be cheaper so long as it continues to be available.

MR. DUBAY responded that it would not necessarily be cheaper. He offered that from his own experience living in Texas, with a great deal of gas sources in Houston, Houston still pays an index-based price. He highlighted except for some transportation costs, that consumers pay an index-based price in New York City and in Houston, with the difference in transportation costs.

SENATOR FRENCH related his understanding that the transportation costs will be in addition to the cost of the gas. He opined that the consumer won't be aware of the separate cost. He inquired as to whether the transportation cost added to the index to transport North Slope gas to Cook Inlet means that the consumer in Anchorage will pay more for the North Slope gas.

MR. DUBAY replied:

> Not necessarily, no sir, because we are not assuming that the transportation cost to Anchorage will be higher than the transportation cost to the Lower 48. So, your tariff to Anchorage and off our line won't be higher than the tariff to Chicago.

4:30:08 PM

REPRESENTATIVE SAMUELS related his understanding that once gas is actually sold in the Lower 48, that the state will have difficulty differentiating [lower] tax rates for residents for U. S. constitutional reasons. He asked, "When you said you'd done your math under the current the tax regime, how much of your math have you done on that?"

MR. WHITE responded that ENSTAR has not performed the complete analysis. He related the assumption that ENSTAR will be a local in-state line as opposed to any gas transported to the Lower 48.

REPRESENTATIVE SAMUELS related a scenario such that ENSTAR did not have a large scale commercial user of North Slope gas, but only had a residential and power generation market in Fairbanks and Southcentral. He asked whether residential and power generation users alone would make a bullet line profitable in this case.

MR. DUBAY answered that it probably would not be profitable for the bullet line to supply residential customers only.

REPRESENTATIVE SAMUELS inquired as to the amount of a state tariff subsidy that would be necessary to make a bullet line profitable in order to provide limitless gas to Fairbanks and all of Southcentral residents.

MR. DUBAY explained that is not something ENSTAR has reviewed. He pointed out that based on the testimony during the hearings, gas prices are high and will stay high due to industrial demand for the gas. He then remarked:

> Is there anybody in the room who would believe that if we had the half of bcf going into the Anchorage community today, that we wouldn't have a functioning LNG operation, and we wouldn't have an Agrium plant that's producing? ... There's a hundred percent certainty that both those industrial users would be online. When we look ... forward we say, what is the likelihood that's going to happen? We've got some time to spend with the engineering and ... some time to spend with producers. But even though we may not see a robust price in the twelve dollar range a year from now, certainly I don't, we don't see anything on the horizon that would indicate energy prices are going to fall dramatically, that commodity prices, I'm talking about commodity food prices, are going to fall. The fertilizer market looks very robust, prospectively. The offshore LNG market looks very robust, prospectively. We're approaching this project with quite a bit of certainty that when it comes time for the industrial users to sign up for capacity on this line, that we're going to get commitments from the industrial users and that they are going to take capacity in the line.

4:34:22 PM

REPRESENTATIVE SAMUELS posed a scenario in which the Foothills does not produce commercial level finds, that ENSTAR must use Prudhoe Bay gas at 0.5 bcf, and must finance the line without Point Thomson gas. He inquired as to how soon would it be before the impacts of ENSTAR's line, which is a short term line to produce energy for this community, "essentially puts a crimp in the style of TransCanada and the major line" because there isn't enough gas to go to 0.5 bcf. Thus, he inquired, has ENSTAR considered if it must use Prudhoe Bay gas and not the Gubik gas.

MR. DUBAY responded by saying:

> Our decision point today is still centered around getting commitments from producers, or probabilities, high probabilities from producers that that gas is there in Gubik. ... We haven't approached the producers today about trying to access the North Slope gas. So we're building our project around the Anadarko and Conoco gas in the Gubik area.

MR. DUBAY, in further response to Representative Samuels, responded that he is not certain when ENSTAR will have an answer on when it could move forward. He said that ENSTAR is scheduled to meet with producers by July, and that another drilling season is planned for next year. Thus, he predicted that by next year at this time, ENSTAR should have enough information from producers to indicate "the high probabilities of the reserves that we need to anchor this project."

4:36:17 PM

SENATOR WAGONER recalled Mr. Thayer previously mentioned that he was going to have discussions with Agrium, Inc. in Calgary. He inquired as to whether those discussions have occurred and if ENSTAR obtained a letter of commitment.

MR. DUBAY answered that he has held discussions and is still working on letter of intent. He stated that he sent Agrium a draft, and has not yet heard back, but anticipates it is forthcoming.

4:37:20 PM

REPRESENTATIVE DOOGAN inquired as to whether the $3.3 billion cost estimate for the pipeline includes any gas treatment facility (GTP).

MR. DUBAY clarified that it includes a treatment facility, but not a liquids extraction plant.

MR. DUBAY, in response to Representative Doogan, agreed that it did include a GTP that will condition the gas to allow for the gas to be piped.

MR. WHITE referred to slide 19, labeled, "Cost to Consumer", and noted this slide illustrates the cost differential between types of fuels in Southcentral Alaska. Switching to fuel oil, would cost $423 million per year in addition to the current costs, and switching to propane would add an additional $831 million annually, he explained. He pointed out that in terms of an in-state pipeline, huge economies exist in terms of the value to the consumer by proceeding with this type of pipeline.

MR. WHITE referred to slide 20, labeled, "Comparative Fuels in Fairbanks" and pointed out that with current prices for fuel oil, which is the dominant fuel used in Fairbanks, consumers could realize $150 million in residential cost savings. He noted that ENSTAR believes the annual value is considerable.

4:39:49 PM

SENATOR STEDMAN asked Mr. White to expand on the electricity costs and the energy source used to generate electricity.

MR. WHITE responded that ENSTAR profiled a standard home, reviewed the "therms" that the house would consume in terms of space heating and water heating, and converted that total value into the number of watts that a house would need. The total watts were then multiplied by the total cost per kilowatt hour for electricity.

SENATOR STEDMAN inquired as to whether the fuel oil projection is based on the home being heated by a boiler and that additionally, the electricity projection is based on use of a diesel-powered generator.

MR. WHITE answered that the electricity calculation assumes the house would be heated using baseboard heat.

SENATOR HOFFMAN inquired as to the unit costs for natural gas for fuel oil and for propane.

MR. WHITE responded that the per unit cost used was $8.57 per mmcf for natural gas, $4.25 per gallon for fuel oil, $4.57 per gallon for propane, and that the tariff rate used was 13 cents for electricity. He said that he guessed at the exact rate today, but advised members that the tariff rate used to produce the graph was pulled from the Internet.

MR. WHITE, in response to Senator Stedman's concern that the figures for fuel oil and electric generation did not seem correct, offered to provide the analysis for members.

MR. WHITE referred to slide 21, labeled, "Accessible In-State Market" and stated that having an accessible in-state market is one of ENSTAR's primary considerations. He noted that ENSTAR's potential markets include: LNG exports, Agrium Inc., Southcentral electric companies, and Fairbanks Natural Gas, LLC. He further noted that military bases such as Elmendorf Air Force Base, Eielson Air Force Base, Fort Richardson, and Fort Wainwright could be served. He highlighted that ENSTAR has held conversations with Flint Hills Resources [Alaska], which is very interested in running their plant off of natural gas rather than oil, and the Golden Valley Electric Association (GVEA) in Fairbanks.

MR. WHITE offered that the demand rate over the next two slides amounts to about 500 mmcf, but when that is split between Cook Inlet natural gas and Foothills, ENSTAR falls under 500 mmcf per day for the annual loads per customer.

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REPRESENTATIVE CHENAULT inquired as to whether Mr. White is referring to half of the production from Cook Inlet and half from Gubik Fields.

MR. WHITE answered that the assumption would be about 80 percent production from Gubik Fields and about 20 percent production from Cook Inlet. In further response to Representative Chenault, Mr. White clarified that total numbers are listed for annual loads.

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SENATOR WIELECHOWSKI inquired as to the tariff that ENSTAR is looking at and what discussions ENSTAR has had with the utilities along the Railbelt.

MR. DUBAY responded that the tariff rate would be in the $2.00 to $2.50 range, which he said he thought was based on a return of the equity portion of about twelve percent and is what ENSTAR is currently authorized in its rates. He further explained that ENSTAR has not yet talked to utilities in the Railbelt. He offered that ENSTAR understands their needs are based on contracts that are filed. However, he noted that they have not held discussions.

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MR. WHITE related that ENSTAR has held discussions with Golden Valley Electric Association (GVEA), in terms of what the value difference would be for conversion. He offered that the new plant that GVEA brought online last year is set up to convert to natural gas, and was designed that way. However, he noted that the older plant is not designed for conversion. He noted that by 2018, GVEA will need to make a re-capitalization decision on the older plant. He related his understanding that GVEA envisions that if the spread between fuel oil and natural gas is at the same point it currently is, that GVEA would rebuild with a natural gas unit.

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SENATOR HOFFMAN pointed out that slides 22 and 23 list Scenario A. He inquired as to whether members could get copies of any other scenarios.

MR. WHITE stated that ENSTAR did have a second scenario which removed Agrium Inc. from the assumption. He offered to supply members with the requested data.

4:49:39 PM

MR. DUBAY referred to slide 25, labeled, "Assumptions" and related that the project is based on the assumption that ENSTAR would obtain utility grade gas out of the production area. He stated that the project would use a 20 inch diameter pipe, with an operating pressure of 2,500 pounds per square inch (psi) and with the ability to spike hydrocarbons or add volumes. He posed a scenario in which production is proved up in the Nenana Basin and offered that if ENSTAR had commitments on 0.5 bcf/d, that ENSTAR would like the ability to add compression to add in production in the instance that production south of Fairbanks occurred. He noted that ENSTAR assumes that through the regulatory process it would have open access pipe. Thus, if other production occurred ENSTAR would have some obligation to accommodate that other production, he explained.

MR. DUBAY referred to slide 26, labeled, "Project Development Plan Overview." He explained that ENSTAR has entered into what it refers to as phase one of the project with the intention of spending capital dollars to better define the alignment, perform design work, perform some field work, and define cost estimates. He reiterated that ENSTAR is working with Conoco and BP to share information. He noted that Conoco agreed last week to share aerial information. He said, "We estimate this phase of the project should cost us $5 to $6 million and we hope that we're going to be completed in the spring 2009."

MR. DUBAY referred to slide 27, labeled, "Where Are We Today." He gave an overview of the work being done. Mr. Dubay explained that ENSTAR has contracted with engineering, environmental, and construction companies to assist with the project. The field work began June 10, 2008, and additional meetings are scheduled with Anadarko in July as well as discussions with Conoco about their production. Our chief engineer is performing aerial photography today, he noted. He highlighted that preliminary permitting and ROW use meetings are underway with governmental entities, that ENSTAR is developing a geographic information system (GIS) database and alignment sheets and, if TransCanada is approved, that ENSTAR will work with TransCanada to coordinate engineering.

4:52:42 PM

MR. DUBAY referred to slide 28, labeled, "Development Plan Priorities." He stated that ENSTAR's priorities are to continue regulatory permit acquisition, prepare economic and financial models, conduct public outreach, understand constituent needs, and submit ROW application. He advised that ENSTAR has set a date of June 2009, to try to reach a management decision to move forward on this project.

4:53:40 PM

SENATOR HOFFMAN inquired as to how the decision date of June 2009, relates to the completion timeframe of five to six years.

MR. DUBAY answered that the five to six years commenced this year. He referred to slide 29, labeled, "ENSTAR Pipeline Development Team" and noted that ENSTAR has engaged Michael Baker, Jr. Inc., Arctic Slope Regional Corporation (ASRC) Energy Services, and Aerometric, Inc. to work with them on this project.

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SENATOR THOMAS referred to a prior slide not in the packet and inquired as to whether the LNG indicated was new LNG or was carrying forward the current export [rate of the existing LNG plant].

MR. WHITE answered that in talking to ConocoPhillips, if [gas] was [at] the right price, Conoco would envision continuing the operation of that facility.

SENATOR THOMAS referred back to slide 14, and noted that production drops off in 2014. He inquired as to who would drop out of the scenario.

MR. WHITE responded that in this scenario, ENSTAR is anticipating approximately 49 bcf per year of export, which would total 134 mmcf per day of gas.

CURTIS THAYER, Director, Corporate & External Affairs, ENSTAR, interjected and pointed out that Senator Thomas was looking at an Alaska Department of Natural Resources (DNR) slide from 2006 that demonstrates the "cliff" in Southcentral Alaska. He continued:

> That is one of the reasons why we decided that we can't afford to wait for a line to come through, whether it is a large line, like we've talked here for 30 years, a line coming down. And here's a chance where we think we can get a line down, a 20 inch from the Foothills down to bring it into this market. One thing is, is reserves are always being found, matter of fact, ConocoPhillips and Marathon are drilling new wells in Cook Inlet. And so there is the assumption that the cliff will move out. But, clearly with Agrium going away, that cliff definitely exists, because they cannot meet the deliverability of Cook Inlet, "they" being the producers in the fields.

In response to Chair Huggins, Mr. Thayer noted that the figures are preliminary figures.

4:57:28 PM

MR. DUBAY interjected that these historical usages are for the industrial users. He said:

> Again, if we had the gas today and those plants were up, this is what we believe they would produce based on what they've historically produced. The utility loads that we forecast are based off of what we know, but what the utilities have filed is what they need for gas in these time periods. So the utility loads

ramp up, but the industrial loads are based on what they have historically used.

4:57:59 PM

REPRESENTATIVE EDGMON referred to slide 4, to the breakout of the consumer base. He inquired as to whether future mining needs have been considered as part of the long term strategic plan.

MR. DUBAY responded that ENSTAR did not consider mining needs. He explained that ENSTAR is basing its product on the current demand on the system and demand that the utilities will need based on their contracts "falling off." He stated that ENSTAR has not developed any additional load for mines or industrial use that hasn't existed or that doesn't exist today.

4:59:42 PM

REPRESENTATIVE EDGMON observed that the potential is available to accommodate the demands, if everything goes as planned.

MR. DUBAY agreed. He acklnowledgedthat the estimates are conservative; gas is still found in Cook Inlet, and Nenana gas is not included in the projections. He opined that as the line gets constructed, more gas will come online, perhaps from Fairbanks or the Gubik field area.

5:00:29 PM

CHAIR HUGGINS inquired as to whether there were questions for Mr. Dubay or ENSTAR and there were none.

CHAIR HUGGINS stressed his commitment to try to provide gas to Alaskans as soon as possible.

[HB 3001 and SB 3001 were held over.]

ADJOURNMENT

There being no further business before the committees, the joint House Rules Standing Committee and Senate Special Committee on Energy meeting was adjourned at 5:04:59 PM.