

ALASKA STATE LEGISLATURE
JOINT MEETING
SENATE SPECIAL COMMITTEE ON ENERGY
HOUSE RULES STANDING COMMITTEE

June 10, 2008

10:04 a.m.

MEMBERS PRESENT

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 Bill Wielechowski
Senator Joe Thomas
Senator Fred Dyson
Senator Thomas Wagoner

HOUSE RULES

Representative John Coghill, Chair
Representative John Harris
Representative Anna Fairclough
Representative Ralph Samuels
Representative Beth Kerttula

MEMBERS ABSENT

SENATE SPECIAL COMMITTEE ON ENERGY

Senator Gary Stevens

HOUSE RULES

Representative David Guttenberg

OTHER LEGISLATORS PRESENT

Senator Bettye Davis
Senator Johnny Ellis
Senator Hollis French

Senator Gene Therriault
Representative Bob Buch
Representative Mike Chenault
Representative Harry Crawford
Representative Andrea Doll
Representative Mike Doogan
Representative Bryce Edgmon
Representative Les Gara
Representative Carl Gatto
Representative Max Gruenberg
Representative Lindsey Holmes
Representative Kyle Johanson
Representative Craig Johnson
Representative Reggie Joule
Representative Wes Keller
Representative Mike Kelly
Representative Beth Kerttula
Representative Bob Lynn
Representative Mark Neuman
Representative Kurt Olson
Representative Jay Ramras
Representative Bob Roses
Representative Paul Seaton
Representative Bill Thomas
Representative Mike Stoltze
Representative Peggy Wilson

COMMITTEE CALENDAR

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."

HEARD AND HELD

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HEARD AND HELD

PREVIOUS COMMITTEE ACTION

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
06/08/08	(S)	MINUTE(ENR)
06/09/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
06/09/08	(S)	Heard & Held
06/09/08	(S)	MINUTE(ENR)
06/10/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM

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; Subcommittee Assigned
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

WITNESS REGISTER

PATRICK GALVIN, Commissioner
 Department of Revenue
 Juneau, Alaska

POSITION STATEMENT: Answered questions related to the proposed LNG and TransCanada project.

BILL SPARGER
 Energy Project Consultants, LLC
 Colorado Springs, CO

POSITION STATEMENT: Presented "LNG Project Costs/Schedule (June 9, 2008)" and answered questions related to proposed LNG projects.

KEITH DODSON
 Westney Consulting Group
 Houston, TX

POSITION STATEMENT: Presented "LNG Project Costs/Schedule (June 9, 2008)" and answered questions related to proposed LNG projects.

ROB FENTON, Managing Consultant
 Gas Strategies
 London, UK

POSITION STATEMENT: Answered questions related to LNG projects.

SCOTT SMITH, Director of Consulting
 Enterprise Management Solutions
 Black & Veatch
 Overland Park, KS

POSITION STATEMENT: Presented "Liquid Natural Gas (LNG) NPV Analysis and Results (June 9, 2008)" and answered questions related to proposed LNG projects.

DEEPA PODUVAL, Senior Associate
 Lukens Energy Group / Black & Veatch Corp.

Houston, TX

POSITION STATEMENT: Presented "Liquid Natural Gas (LNG) NPV Analysis and Results (June 9, 2008)" and answered questions related to the analysis.

J. TIMOTHY ROMER, Managing Director
Goldman Sachs & Co.
Municipal Finance Department
Los Angeles, CA

POSITION STATEMENT: Presented "Financial Review of TransCanada and Proposal (June 10, 2008)" and answered questions related to the analysis.

PAUL BLOOM, Vice-President
Goldman Sachs & Co.
Municipal Finance Department
Los Angeles, CA

POSITION STATEMENT: Answered questions related to the analysis and document "Financial Review of TransCanada and Proposal (June 10, 2008)."

ACTION NARRATIVE

CHAIR CHARLIE HUGGINS called the joint meeting of the Senate Special Committee on Energy and the House Rules Standing Committee to order at [10:09:40 AM](#).

SB3001-APPROVING AGIA LICENSE **HB3001-APPROVING AGIA LICENSE**

Before beginning the hearing **CHAIR HUGGINS** addressed some administrative items before the body.

[10:11:01 AM](#)

SENATOR STEDMAN asked if the May 25, 2005 press release referring to the Federal Energy Regulatory Committee (FERC) should be read into the record for the benefit of those not present.

CHAIR HUGGINS replied it could be done later in the day and the document would be posted to the website.

[10:11:34 AM](#)

CHAIR HUGGINS reviewed agenda changes for the day. He asked Commissioner Galvin to introduce the presenters.

[10:12:20 AM](#)

COMMISSIONER PATRICK GALVIN, Department of Revenue, said after yesterday's economic analysis presentation it was brought to his attention it was difficult to understand some of the liquefied natural gas (LNG) comparisons without having some explanation of how the costs were built up and the schedule crafted. To address those questions, Bill Sparger who headed up the technical team and Keith Dobson from Westney Consulting, the expert on the issues of costing, were present.

Before their presentation Commissioner Galvin gave some background on the selection of LNG cases to be evaluated. He said when the decision was made to analyze LNG in addition to the TransCanada Alaska (TC) application, a choice needed to be made about what would be analyzed. Four different projects were submitted during the application process. One came from Little Susitna in connection with Sinopec. That proposal was a very large capacity line with the objective of buying the gas at the North Slope, shipping it through a 4.5 bcf/day line, and then shipping to China. The Port Authority's (PA) initial application was a combination of two different projects. They subsequently significantly amended it to a 2.7 bcf/day project.

COMMISSIONER GALVIN said when making comparisons the Department was not trying to develop any particular project. The objective was to frame the economics of LNG to provide a comparison to the TC project. Since there was no particular project a range was established and they looked at the applications that came in for information on what that potential picture would look like.

10:16:00 AM

COMMISSIONER GALVIN said one applicant proposal of 4.5 bcf/day became one side of the potential range. That range point provided a good comparison for the TC project because of the similar initial capacity terms. Similarly, he said the Port Authority's (PA) smaller capacity proposal provided a way to look at the potential to ramp up over time. The Department wanted to look at that type of project development plan as well to compare the economics and likelihood of success criteria.

COMMISSIONER GALVIN explained the technical team was asked, using those parameters and data obtained in applications to provide economic models for LNG projects using the same assumptions that they used for the TC analysis. He said the presentations made today will be the results of that analysis. The Department's goal was to provide a fair comparison of potential LNG projects without singling out one in particular.

10:18:01 AM

BILL SPARGER, Energy Project Consultants, LLC., referring to page 2 of the document "LNG Project Costs/Schedule (June 9, 2008)" said the three cases Commissioner Galvin mentioned are one similar to the PA application, one is the TC Y-line option, and one is similar to the Little Susitna application. He said it was important to note in all three cases, assumptions were made absent any hard information, and that all of the gas went to the end of the pipe. This was important in cases one and three because both of the applicants assume five hundred million came off somewhere. Case one cannot be directly compared to the PA numbers because it is actually a larger LNG project.

MR. SPARGER said the results of the LNG comparative analysis show capital costs are higher. He referred to the 4.5 bcf/day LNG project as an apples to apples comparison to the TC project. The capital costs are higher driven by the cost of the liquefaction plant which does not exist in the TC application.

10:20:00 AM

MR. SPARGER, referring to page 3 of the document, said the schedules are similar and restated that "we are not using anyone's cost or anyone's schedule" but developed a schedule of around ten years. The ten year time period is within four to five months of the PA application and two to three years faster than Little Susitna's application.

10:20:55 AM

MR. SPARGER said a later start date was assumed for LNG. The reason was if TC were awarded a license they could start work immediately. This was not the case for the LNG project as there is no applicant.

10:21:26 AM

MR. SPARGER said the addition of the liquefaction plant required a higher cost and schedule risk. The pipeline, even though cut roughly in half, is no more complex or risky than the all Alaska pipeline. The development phase was shortened slightly by taking out the Canadian regulatory and personations risks. He said the Gas Treatment Plant (GTP) and pipeline to Delta Junction were exactly the same regardless of where the gas goes when it gets to Delta Junction. Additionally, the miscellaneous development phases were factored from the TC application with the exception of the Canadian regulatory issue.

MR. SPARGER noted the reports contain cost ranging curves for all of the sub-projects, though will not talk about development

GTP or a pipeline to Delta Junction since it was exactly the same.

10:22:54 AM

MR. SPARGER, referring to page five of the document, said in his opinion the terrain from Delta Junction to the Canadian border is more conducive to pipelines. Also, the Trans Alaska Pipeline System (TAPS) pipeline drives up complexity and costs going to Valdez. Additionally, Thompson Pass and Keystone Canyon, have huge amounts of snow and rain. On a dollar per diameter inch mile basis the costs are a little bit higher. The main driver is the LNG plant itself.

10:24:07 AM

KEITH DODSON, Westney Consulting Group, said he has forty years experience in large capital projects around the world and has been involved in LNG projects for thirty-five years. He was in Alaska during the LNG boom in the late 1970's and was personally responsible for the design and construction of the world's largest LNG facilities.

MR. DODSON stated no one knows exactly what an LNG to Valdez would cost in the time frame discussed. What is known is the range of costs of today's plants. Since the first quarter of 2005 costs of LNG facilities have tripled or quadrupled. A third of the cost increase is due to the inflation of commodities and other components such as steel and copper. A lot of components for LNG facilities are not in dollars so the weakness of the dollar has a big effect on some of the multipliers. Another element is that contractors in the early days of LNG construction did not charge risk premiums and lost money. Current risk premiums for contractors and vendors are exceptional. He said these three factors have combined to create a wide array of outcomes in LNG projects.

10:26:28 AM

Mr. DODSON said page 6 of the document "LNG Project Costs/Schedule (June 9, 2008)" was a large 4.5 bcf case. The curve plots the Westney database and two other public sources. One is a Petroleum Finance Corporation (PFC) study done for the State on a 2005 PA submittal. The other is the Norwegian Snovit LNG project. He said he understands there are issues with Snovit's Arctic conditions, but he believes the issues are actually with the marketplace. Snovit was eliminated from consideration because of unexplainable factors. For this analysis his firm looked for a range of costs for LNG facilities that they have extensive knowledge about. Because of their

knowledge of these projects they were able to adjust them for a Valdez location.

[10:28:18 AM](#)

MR. DODSON stated there are no large negatives associated with a LNG facility located in Valdez. Valdez has some downsides but also upsides because of the temperature of the water. LNG liquefaction is a cooling process so the efficiencies are actually increased with cooler water. In general, Valdez is not a bad site compared to most around the world.

MR. DODSON said the comparison facilities fall into two groups. Many in the lower quartile have schedule issues. Nearly every facility in the completion phase is one year behind, adding to costs. A number of LNG projects around the world are done on a lump sum performance guaranteed basis, principally by Japanese contractors. For example the Sakhalin project had huge cost overruns, none of which were associated with the LNG facility because Shell had a lump sum turnkey price from Chiota Corporation.

[10:29:50 AM](#)

MR. DODSON performed a simulation of the outcome to see what the predictive range would be in the middle. This was basically what was used in the net present value (NPV) analysis. He said "E" on the chart on page six is where the two applications fell out. The cost in the middle is only about 25 percent higher than the two applicants and about 50 percent below the top of the range. The applications are consistent with current information; on the lower end, but not the lowest.

[10:30:49 AM](#)

MR. SPARGER continued to page 7 (integrated project costs) of the document "LNG Project Costs/Schedule (June 9, 2008)." He said the probability 50/50 point is about \$43 billion which is about \$11 billion dollars more than the for the TC base case.

MR. SPARGER said the years referred to on page 8 of "LNG Project Costs and Schedule (June 9, 2008)" are not really relevant; the duration was the important point. The start date would be whenever an LNG project would start commercially.

[10:32:26 AM](#)

MR. SPARGER said the chart on page 9 of the document shows the relationship between all the components. He said it was important to remember that gas cannot flow until all three of the major components, the GTP, the pipeline, and the LNG, are

complete and ready for service. The "schedule" refers to the overall project schedule including the development phase. The LNG and GTP develop in steps, called "trains," so staggered steps are seen as the gas comes on stream.

[10:33:15 AM](#)

MR. SPARGER, referring to page 10 of "LNG Project Costs/Schedule (June 9, 2008)" said the schedule for the Y-line was different because it has a different set of assumptions. One assumption is negotiations are complete and there is a shorter development phase and basically the same construction phase. He believes a Y-line can be done in seven to eight years as opposed to over ten years for the larger project.

[10:34:50 AM](#)

SENATOR WAGONER asked for an explanation of the difference in the percentage of gas it will take to operate the LNG project versus the pipeline project.

[10:35:21 AM](#)

MR. DODSON replied LNG liquefaction was a process of compression and cooling. There is some shrinkage of material that is used for refrigerant.

[10:35:47 AM](#)

MR. SPARGER said GTP was a huge percentage of the fuel in the overall project. The pipeline is much more efficient from a fuel standpoint. The LNG plant is very similar to the GTP. The fuel usage shrink is close to 10 percent for both facilities. The pipeline is somewhere around 2 percent.

SENATOR WAGONER clarified that about 7 percent more will be lost with the LNG project.

MR. SPARGER replied yes.

[10:36:36 AM](#)

SENATOR DYSON said he believes it unlikely that Congress would be open to an LNG project that shipped anywhere but to North America and thought that was evident from visits from the Federal Energy Regulatory Commission (FERC) members. He asked if that was a fair assessment, and about the ability of West Coast receiving facilities to handle the volume that a LNG plant in Alaska might produce.

[10:37:16 AM](#)

MR. DODSON replied there are two issues with the United States market. First, the heat value in the gas itself has to be lowered to fit the U.S. pipeline system. The gas to the Far East is about 1,033 btu/cubic foot versus the U.S. btu of 1,050. The heat content of the gas has to be reduced either at the liquefaction site or the re-gasification site and there are consequences to both. Shipping is required in Jones Act carriers which are far smaller than the carriers that go to the Far East. He said probably the largest issue was that the West Coast had plenty of gas. The one terminal currently operating ships to Arizona and New Mexico because there is no need in California.

10:39:07 AM

SENATOR DYSON said his question had to do with whether gas from Alaska would be allowed to be exported in the short term. When the senator worked for British Petroleum (BP) during the 1970's, any talk about Prudhoe oil going overseas caused the nation to get its "collective hair on fire." He believes in the current political climate Alaska's gas going overseas would not be allowed even if it made economic sense.

COMMISSIONER GALVIN responded the consultants did not participate in the Washington, D.C. political dialogue so are not in a position to comment on that question.

10:40:02 AM

CHAIR HUGGINS asked if they are skeptical of a Y-line in a large capacity LNG project.

MR. DODSON answered yes. LNG projects around the world do not get built in large capacity, but are started in one "train." None of the last ten projects around the world are over ten million annual tons because it is very difficult to get contracts for the off-take. It is much easier to get off-take for five to eight million annual tons which is the economical capacity of one train. The focus is normally on getting one train then going on to multiple units. He said he was not a market expert but selling more than that would be challenging.

CHAIR HUGGINS asked for a synopsis of how LNG is evolving around the world.

MR. DODSON said a big expansion in capacity has occurred. The demand for LNG facilities outran the engineering capacity, and outran the ability to produce compressors and exchangers and

other components. It is now outrunning the world's labor supply. LNG facilities are slowing down as a result of cost shock. But he believes LNG will go forward because there are many places in the world where LNG makes sense as a fuel. It may move slower and will go through peaks and valleys, but he believes it is here to stay. Investment in re-gas terminals and LNG facilities would not be moving forward if there was not evidence of its future.

[10:43:11 AM](#)

CHAIR HUGGINS asked if "sticker shock" was unique to LNG.

MR. DODSON answered yes. Cambridge Energy Research Associates, the industry body for price indexes, says that all oil and gas facilities from the first quarter of 2005 to the present are about two times higher. For LNG, costs can be three to four times higher, a significant increase over other oil and gas facilities. This is demand pricing as opposed to inflation.

[10:43:50 AM](#)

MR. SPARGER added all facilities had gone up, but react differently depending on what market is driving the prices. Pipelines are more effected by the North American market, whereas LNG plants or GTPs are driven more by the world market. In the total cost estimation they used 4 percent per year for the capital as a basis. Though it may seem low compared to the last three or four years, the industry never sustains price escalations for long periods of time. Forty years of price escalation data for industrial type facilities show the peaks are always followed by a fallback.

[10:45:11 AM](#)

SENATOR THERRIAULT asked about the technical possibility of high grading a gas stream from the tank off-point to tide water so more of the gas to liquids (GTL) could be processed into a higher grade finished product.

[10:45:47 AM](#)

MR. DODSON replied a natural gas liquids (NGL) extraction facility could take all the liquids out and is not technically challenging.

[10:46:03 AM](#)

REPRESENTATIVE GARA said he had heard various numbers but knows the TC line is not 4.5 and wonders how that affects the comparative risk and benefit. He also asked if shipping costs were being factored into the LNG plant costs.

MR. SPARGER answered shipping costs are not included in capital cost figures, but as an operating expense. Shipping costs were included in the analysis.

REPRESENTATIVE GARA asked about the relevancy of shipping costs when looking at comparative costs and risks for a LNG plant.

[10:47:41 AM](#)

SCOTT SMITH, Black and Veatch, replied there is a capital expense getting the gas to Valdez and an incremental shipping cost. In the analysis a capital estimate was made to get the gas to Valdez. They then developed a tariff and added an additional cost that incorporated the shipping cost, moving the gas from Valdez to Asia. Shipping cost was estimated by Gas Strategies at approximately a dollar in 2020. It was included as an additional fee paid after incorporating the capital.

[10:48:24 AM](#)

REPRESENTATIVE GARA asked if what was presented previously is impacted by the different pipeline sizes.

[10:48:32 AM](#)

COMMISSIONER GALVIN replied that the analysis shown was LNG at the highest NPV to the State and to the producers. The goal was to show a range. He said a later presentation will show side by side comparisons between various pipe sizes and the conclusions were presented in the report.

CHAIR HUGGINS reminded all participants to identify themselves for the record.

[10:50:32 AM](#)

SENATOR WIELECHOWSKI said he appreciated the analysis that had been done. He is convinced the line to Canada is more economic than the line to Valdez, but he is concerned about the risks. When he compares the two projects many red flags such as first nation, treaty, and right of way issues surface. These issues may not emerge with a LNG. He also sees problems with the Canadian regulatory system and environmental lawsuits which have been dealt with in Alaska but not with the Canadians. Another unknown is if there is enough gas for the off-take to support 4.5 bcf. There is enough for a LNG line. The LNG project seems safer because it has less relative risk even though it may not bring as much money to the State. He thinks this is something to think about when analyzing the relative risk.

COMMISSIONER GALVIN responded that Senator Wielechowski had hit upon the whole design of the analysis which was weighing net present value, the economic value, and ranking by likelihood of success. What has been presented thus far is the economic side. A likelihood of success analysis that is just as complex has not been presented yet. Chapter three of the findings report contains an analysis of the TC application. Commissioner Galvin asked the committee to report back to him if they see areas in the analysis that need further attention.

[10:55:19 AM](#)

CHAIR HUGGINS said Senator Wielechowski brought up a good point. He also believes it would be valuable for the presenters to identify their process, timeline, and critical decision points as they continue through the presentation.

[10:55:59 AM](#)

REPRESENTATIVE EDGMON asked if any analysis had been done on off-take points that might be used to get gas to rural Alaska.

COMMISSIONER GALVIN said analysis of in-state gas demand and potential projects thus far had been done primarily through the Alaska Natural Gas Development Authority (ANGDA). They are at step one of what will be a multi-step process of analyzing and identifying opportunities for Alaskans.

[10:58:47 AM](#)

SENATOR STEDMAN asked what discount factor and modifications of that factor were used to adjust for the risk exposure of LNG.

[10:59:00 AM](#)

MR. SMITH answered they used the same discount factor of 5 percent.

SENATOR STEDMAN asked how decision makers are to choose options if there is no risk adjustment in the discount rate.

MR. SMITH replied there are different ways to think about the discount rate. Exposure to Asian prices was examined. They also looked at ranges of costs, schedules, interest rates, and escalation factors. All those factors were explored in different scenarios to understand how the NPV would vary.

[11:00:46 AM](#)

COMMISSIONER GALVIN added the discount rate used was an indication of the value of the cash flow coming off the project. In order to have a true comparison of the cash flows that would

be generated by a LNG project versus an overland project, the same discount rate must be used.

SENATOR STEDMAN said he did not agree with Commissioner Galvin's answer and the discount rate should have some component parts added for the producers, for the midstream participants, and for the State in order to help select the best project for the State.

[11:02:42 AM](#)

COMMISSIONER GALVIN replied the analyses showed the different discount rates of the cash flows. He added it is simple to show the cash flows for the LNG projects at any discount rate and compare those to an overland project at any discount rate. The statute required a NPV analysis with five different discount rates which are in the report and subject to comparison. He said he is willing to discuss another discount rate but does not believe different rates for an overland project and LNG is a fair comparison.

[11:03:48 AM](#)

SENATOR STEDMAN said there is a large amount of data to review in the reports and asked if there was a section covering discount rates and what was considered in some of the risk factors.

MR. SMITH replied they used different discount rates for the producers and the State, than for the TC/LNG project developer. They elected to keep the rates consistent between scenarios to minimize the comparative impacts. Instead they looked at scenario analysis to highlight the different risks of the different projects. The discount rates ranged from 2 to 8 percent so they used 5 percent as the base. In the analysis they started with the cash flows generated by the project, which are significant whether it be a LNG or an overland route, and then looked at what the implications are associated with discounting those cash flows to current dollars. The next step was understanding the implications of different discount rates. He believes it is easier to understand and highlight the risk of different projects by looking at the factors that lead to a higher or lower cash flow versus trying to embed the risk in the discount rate itself. That was the process used to perform the analysis.

[11:06:28 AM](#)

SENATOR STEDMAN said he had a hard time understanding how the same discount rate applied under substantially different risk

parameters. There are different risk components and capital requirements in LNG. He agreed with the conclusion that LNG was something radically different but found it difficult to compare the cash flow benefits and risk of the two projects.

11:08:06 AM

COMMISSIONER GALVIN said one method of financial analysis was to use a discount rate as an indication of risk tolerance or expectation. In this analysis a different method was used because there are so many different risk factors involved. Rather than use the discount rate to analyze the comparative risks the cash flow was risked. The analysis shows the potential range of the ultimate cash flow and then discounts it at the same rate between the projects so the relative risks of each factor between the two projects can be compared.

11:09:53 AM

REPRESENTATIVE NEUMAN asked if he was correctly interpreting that the main pipeline would be running in 2018 and LNG exports would be going out of Valdez in 2022 or 2023.

MR. SPARGER answered the years indicated on the chart did not matter much because it depends on when the expansion starts or when the LNG option of the Y-line starts. It could start as early as 2012, but the main project has to be far along in the project development phase before the LNG could start. A start date prior to 2012 is probably not feasible.

REPRESENTATIVE NEUMAN said he was glad to hear that because that would put the LNG plant out twelve to thirteen years. He remembered a PA proposal that said a line could be up and running in six to seven years and hopes a plan will continue to move forward.

MR. SPARGER replied he did not have any information that showed six to seven years. Their analysis says a stand alone LNG project as proposed by the PA is ten years including the development phase. The development phase is a lengthy process that requires making the business deal, doing the open season, and all the regulatory approvals. In the TC schedule, it takes five and half years. The PA schedule was shortened somewhat but not three or four years.

11:14:11 AM

REPRESENTATIVE NEUMAN asked if a spur line to Valdez would be a competing project.

COMMISSIONER GALVIN replied a spur line off the TC line would not compete because it would be coming off of the main line. The question is if the TC project would be set aside and attention devoted to a LNG project. Based on the analysis he does not believe that is in the State's interest. The start date of the expansion could be moved back four years and end up with the Y-line in place at the same time, with first gas coming in the same time as the overland project. He said it was a matter of being ready when the opportunity comes about.

REPRESENTATIVE NEUMAN was happy to hear that the projects would not compete.

[11:16:00 AM](#)

REPRESENTATIVE NEUMAN asked if there was any way to get gas from the North Slope to Alaskans any sooner.

COMMISSIONER GALVIN replied that was related to the idea of a bullet line. With a smaller line there are fewer GTP timing issues and smaller pipe can be put in place quicker. The decision is about how the State wants to assist in the economics by providing additional money that would not have to be recouped through the rate payer.

CHAIR HUGGINS asked if it was still supportable, based on the assumptions of volume available, if it was done concurrently.

COMMISSIONER GALVIN answered what was analyzed was on the main line coming off the existing reserves. The main line can be built with the known reserves. Expanding to 2 bcf/day will require finding more reserves between now and then. Different opinions exist on the likelihood of finding more reserves. Current activity is targeting gas and is going on now in areas that is both gas and oil prone. The level of early success in those operations will lead to the potential for first gas to include what is considered today to be new gas. He believes the potential exists and is just a matter of when explorations begin and how successful the initial investments are going to be.

[11:18:54 AM](#)

CHAIR HUGGINS said investments would be based on new discoveries and new production.

COMMISSIONER GALVIN agreed.

REPRESENTATIVE NEUMAN reiterated that because the projects can work in parallel, he hoped it was a long term goal of the State

to assist the Development Authority and the Pipeline Authority to work towards those goals.

COMMISSIONER GALVIN agreed when talking about lines off the main line.

11:19:14 AM

REPRESENTATIVE FAIRCLOUGH asked if all the reference points on page 6 of "LNG Project Costs/Schedule (June 9, 2008)" were for known LNG projects.

MR. DODSON answered yes.

REPRESENTATIVE FAIRCLOUGH asked for dates of the projects.

MR. DODSON replied they are from the last ten years.

REPRESENTATIVE FAIRCLOUGH commented that the chart shows a broad cost escalation range.

MR. DODSON replied LNG projects do not finish every year, most of them being seven or eight year projects.

REPRESENTATIVE FAIRCLOUGH asked for a reference date in the points shown on the chart. She said she did not question the projects were expensive. But, she said, time does matter in terms of cost investments because of a prior statement made about historical high costs followed by lows.

COMMISSIONER GALVIN said the points plotted on the chart were a result of personal project knowledge. The reason they were indicated in letters is because they are based on proprietary information that cannot be divulged.

REPRESENTATIVE FAIRCLOUGH said she appreciated that but is sure someone from the administration asked for verification.

MR. DODSON said there are three verifiable points on the chart. One is (indiscernible), one is Snovit, and the third is the Port Authority represented by "E".

REPRESENTATIVE FAIRCLOUGH said she does not think the chart is relevant if she cannot confirm the costs are accurate to what was being compared.

11:23:29 AM

REPRESENTATIVE FAIRCLOUGH asked how long the cost point stayed high in the forty year historical period of high construction costs.

MR. SPARGER replied that information was in the technical findings report. It goes up for two or three years historically and then falls. Sometimes it has gone through decades of flatness. The scatter is worse now than in the last ten to fifteen years. He said the types of increases seen over the last few years were not historically sustainable.

REPRESENTATIVE FAIRCLOUGH said for the last three to four years construction costs had gone up by 30 percent annually. She believes she just heard the cycles had been in shorter segments. She is trying to determine how far costs will drop in the future when higher construction increases for a longer period of time are already occurring.

MR. SPARGER replied they were not saying the prices were going to drop. They are saying the 2007/2008 historical high point will escalate 4 percent. They are not trying to predict how far it will drop when it drops, but saying it cannot sustain twenty-five, thirty, or even 10 percent on a historical basis. This applies to any project of any type to move gas off the North Slope. He said all projects face the same issue of fluctuating capital costs.

REPRESENTATIVE FAIRCLOUGH asked if it was fair to say construction cost increases were higher and stayed higher longer than any other period of time in the forty years that were examined.

MR. SPARGER replied there could be some but he could not say for sure.

[11:26:30 AM](#)

REPRESENTATIVE FAIRCLOUGH asked what type of LNG product, dry or liquid, the Asian market typically buys.

ROB VENTON, Gas Strategies, answered the gas typically bought in the United States was dry, meaning the natural gas liquid components of the methane had generally been taken out, resulting in a lower btu content. Asian market LNG is high btu, meaning the natural gas liquids are generally left in.

REPRESENTATIVE FAIRCLOUGH asked if the Asian markets were also buying the dry product.

MR. VENTON replied they buy small quantities of low btu LNG when they need it, but have to add back one of the components, usually propane, before they can use it.

[11:28:32 AM](#)

REPRESENTATIVE FAIRCLOUGH asked if the LNG projects presented on page 6 of "LNG Project Costs/Schedule (June 9, 2008)" were producing different types of gas.

MR. SPARGER said he did not know but would get the answer.

[11:29:07 AM](#)

REPRESENTATIVE WILSON asked if the TC and LNG projects could be done at the same time with the State's limited workforce. She does not know if there is an answer to her question but is something that needs to be considered.

COMMISSIONER GALVIN agreed the capacity to do both at the same time was necessary and Commissioner Bishop of the Department of Labor was looking at the question. There is some concern among industry personnel that simultaneous construction of the McKenzie and TC project is going to be very difficult with the existing workforce. People are hoping the relative timing of the two projects will enable workers to transfer from one to the other. He said it would also be necessary to look at the impact of a potential Y-line project.

[11:32:03 AM](#)

SENATOR FRENCH asked for clarification of the State's ability to assist with royalties or taxes under the Alaska Gasline Inducement Act (AGIA).

COMMISSIONER GALVIN responded under AGIA the State cannot assist with tax and royalties on a competing project. The TC application says they will build the line wherever the customers will be. In that regard it would be the same project, just going to a different end point and the State could assist in the LNG component. It would not be a competing project because a different project sponsor would not be trying to get the gas from the North Slope away from the TC project.

SENATOR FRENCH asked how far "assistance" goes and if that would include something along the lines of the State buying or building a LNG facility in Valdez.

COMMISSIONER GALVIN replied he would get back later with further information on that question.

[11:35:06 AM](#)

SENATOR STEDMAN said page 14 of Black & Veatch's "NPV Analysis Report" [May 22, 2008], Section 2.0 Net Present Value Modeling Objective, referred to the methodology used to deal with the present value and anticipated cash flows to the State from the project proposals using various factors. The document also states Black and Veatch's role was to perform the AGIA NPV analysis. Senator Stedman asked how the process worked between the administration and Black and Veatch and how to interpret the data on page fourteen.

MR. SMITH replied that page 14 restates AGIA requirements and Black and Veatch's role which was to do the analysis, understand the NPV, understand sensitivity to the NPV, understand risks of how those cash flows may vary and provide that information to the State, so they could form their opinion. Black and Veatch is not advocating one project over another.

SENATOR STEDMAN said his question can be addressed later because it is a different project outside of AGIA. He is struggling with the concept of the same discount rate for the State cash flows when there are huge risk differences between the two projects.

[11:39:53 AM](#)

COMMISSIONER GALVIN said the essence of the analysis was looking at the likelihood of success and was done for both the TC project and for a generic LNG project. In the NPV analysis similar overlapping issues exist dealing with risks and the assessment of those risks affecting the cash flow. This analysis did not make specific assumption on price, cost escalation, or on cost factors, everything was ranged. The range that results from the cash flows is reflected in the reports. The final step was taking those cash flows and creating a net present value number. The discount rate is dependent upon a number of different factors. He said it was important to look at the use of risk in the analysis and the relationship of how that risk changes the outcomes and which of the "knobs were turned" based on that risk. In this analysis they decided to "turn a whole bunch of knobs" based upon risk rather than just one in the discount rate.

[11:42:20 AM](#)

CHAIR HUGGINS asked if there were any concluding comments from the presenter on LNG. Hearing none, the chair asked the panelists to continue their presentations.

11:42:33 AM

MR. SMITH, continued the presentations starting on page 7 of Black and Veatch document "Liquid Natural Gas (LNG) NPV Analysis and Results" (June 9, 2008). He said, a start date was estimated for a Y-line. It would be a 4.5 bcf/day project to Canada, starting in 2020, and a 2 bcf/day LNG project to Valdez, starting in 2025. The chart shows how the cash flows start off and change through time and are shown in annualized dollars in any given year. Other information shown on the chart is how the total of all the cash flows are aggregated for the different parties. NPV is not shown, just the total dollars and what has been collected. The graph shows the State is collecting the largest share, 43 percent of all the cash, whereas TC is collecting 14 percent and the producers 23 percent. To calculate the NPV, the 2045 dollars are converted into 2008 dollars to make a relative comparison.

11:46:00 AM

DEEPA PODUVAL, Black and Veatch, reiterated cash flows were determined by adding up whatever was generated in 2020 through 2022 without applying any discounting. The State generates \$353 billion dollars of total cash flow during the 25 year analysis period. She said \$353 billion dollars in the future was not worth the same today so it was discounted using a rate of 5 percent each year which equates to the \$86 billion dollars shown on page 8 of "Liquid Natural Gas (LNG) NPV Analysis and Results" (June 9, 2008) for the 6.5 bcf/day Y-line. Similarly, the total cash flows generated for each of the other LNG projects presented on the table were discounted to what they would be worth in 2008. The NPV for these different projects ranges from about \$29 billion dollars for the 2.7 bcf/day LNG, to \$48 billion dollars for the 4.5 bcf/day LNG. As she mentioned on June 9, the Y-line assumed the 4.5 bcf/day project took the gas to AECO Hub. She said adding the 2 bcf LNG project to that configuration adds about \$20 billion dollars in additional NPV to the State. The direct comparison is not shown on the chart but the 4.5 bcf/day project to AECO alone has an NPV to the State of \$66 billion dollars. She said these projects were profitable by any standards, just not as profitable as the pipeline project.

11:48:42 AM

REPRESENTATIVE SAMUELS asked if it was assumed everything went into production on the same day when NPV numbers were run.

MS. PODUVAL answered no, those figures assumed the 4.5 bcf/day project started in 2020 and the LNG line started in 2025. If production from the LNG line started in 2020, as is possible, then the NPVs would be higher than what is shown.

[11:49:24 AM](#)

REPRESENTATIVE SAMUELS asked how to get somebody willing to invest in the LNG line when 2 bcf of gas is needed to pay for it.

[11:50:44 AM](#)

MS. PODUVAL believes it will be driven by commercial interests.

[11:51:24 AM](#)

MR. SMITH added developing a pipeline or a LNG project has a lot of variables. They made a simplifying assumption of a 2 bcf start up in their analysis because it is impossible to evaluate every scenario that could be imagined. There are other scenarios to consider such as starting at 1 bcf/day and ramping up from there.

REPRESENTATIVE SAMUELS asked if numbers were run for 1 bcf/day. He said nobody will sit on their gas until it is economically viable to go to LNG.

[11:53:31 AM](#)

COMMISSIONER GALVIN replied the opportunity existed to analyze the economics of a potential Y-line. When looking strictly at the economics of an incremental increase of a large overland project it will be more economical to send gas down that line than it will be to create a new LNG project strictly because of the costs. However, there is potential that other producers may be discovering gas and ultimately decide where they want their gas to go in the market. They may have strategic reasons to want to have LNG on the Pacific Basin and that may be much more valuable than the strict economics of where the gas from the North Slope will ultimately get the highest return. He said an opportunity existed for a Y-line to provide access to an attractive market to a producer for strategic reasons.

[11:55:45 AM](#)

REPRESENTATIVE SAMUELS agreed the market place would take over, but the minute a big line gets built, it becomes problematic to

build a competitive pipeline unless you have a large quantity of gas at one time.

11:57:09 AM

COMMISSIONER GALVIN said because LNG is constructed in "trains," meaning you construct an entire new processing facility with its full capacity one chunk at a time, incremental expansion for a LNG project would be in bigger chunks than it would be with just a pipeline to market. He said Representative Samuels is alluding to the fact that for any LNG project, whether it is the initial run of a Y-line or an expansion of an LNG project discovering enough gas is needed to justify the initial run of that expansion. He is concerned about building an overland route off a LNG project for much the same reason. He said a potential constraint exists on the desire for exploration because of the risk that a significantly larger volume will need to be found to get the gas to market. He believes given the potential of the North Slope, particularly since it is under-explored as has been indicated by the geologists, the opportunity is best now for a LNG project as a Y-line off the main line, when new exploration and larger finds are likely.

12:00:13 PM

SENATOR STEDMAN asked how the 20 percent capital credit and capital credits applicable to the gas treatment plant were handled when calculating the revenue stream.

MR. SMITH replied they did deal with all the estimates of capital costs from GTP all the way through to the liquefaction facility. He said associated costs were converted into a tariff assuming similar type structures for an overland project. They mirrored what TC proposed to try to minimize any differences.

COMMISSIONER GALVIN clarified that he thought Senator Stedman was referring to production tax credits associated with upstream production costs and wanted to insure those had been incorporated into the tax flow analysis.

MS. PODUVAL said the capital cost credits were incorporated in the estimation of the production tax. They recognized the capital expenditure associated with upstream exploration and development activities would be subsidized by the State through lower production taxes.

SENATOR STEDMAN said he thought the analysis showed capital expenditures growing by five or 6 percent a year. He asked the presenters to address the dollars being looked at over the next

twenty years because of the desire to get more capital investment into the basin to increase oil production.

MS. PODUVAL replied capital expenditures for the gas treatment plant were not considered as upstream capital costs that would earn credit from an ACES (Alaska's Clear and Equitable Share) perspective.

[12:03:24 PM](#)

REPRESENTATIVE CRAWFORD said he started listening to these analyses in 2001 and a lot of estimates were made about what the future would hold. He said he learned over the years that all the analyses were wrong. He expressed the need to look ahead for future generations, think about all possibilities, and keep all options open.

[12:06:27 PM](#)

CHAIR HUGGINS said there appeared to be an air of certainty and he did not have that confidence.

[12:06:45 PM](#)

REPRESENTATIVE HOLMES asked what the NPV of an expanded overland route would be.

MS. PODUVAL answered that information is in the report and she would find it and report back later.

[12:07:54 PM](#)

REPRESENTATIVE RAMRAS asked what the billings with Black and Veatch had been so far.

COMMISSIONER GALVIN replied he did not have that information with him and would have to report back later.

[12:09:11 PM](#)

CHAIR HUGGINS announced an at ease until 1:30pm.

[1:42:15 PM](#)

CHAIR HUGGINS called the meeting back to order at 1:42pm. The panel continued with their presentation.

[1:42:57 PM](#)

MS. PODUVAL continued with her presentation of "Liquid Natural Gas (LNG) NPV Analysis and Results" (June 9, 2008). She said the NPV to the State and producers was evaluated under a baseline LNG price assumption, but Gas Strategies also provided a high and low LNG scenario to risk the NPVs. When applying the

Gas Strategies price assumptions to the 4.5 bcf/day LNG project, the NPVs to the State varied from about \$13 billion to \$61 billion dollars (page 9). Producer NPVs discounted at 15 percent vary between about \$3 billion dollars to a negative \$1.8 billion dollars. The relationship between gas and oil prices was also evaluated to see how high oil prices would have to be relative to gas to make an LNG project more desirable to AECO than an overland project.

[1:45:38 PM](#)

MR. SMITH said price was a large component when assessing the different risks of the project. With LNG there are more dynamics for estimating price, such as the price of the gas delivered in Asia. Another factor is the relative comparison to the domestic price. He said they looked at those relationships historically and what happened when they changed. Page 10 of "Liquid Natural Gas (LNG) NPV Analysis and Results" (June 9, 2008) shows the price difference between crude oil and natural gas at Henry Hub. Since 2000, crude oil is eight times the gas price. Also a potentially higher ratio of crude oil to gas prices occurs when crude is at \$125 to \$130 dollars a barrel.

[1:48:29 PM](#)

MR. SMITH said the basic analysis was to test the sensitivity to different ratios of oil prices to gas. They found sustained high oil prices over the entire project period are necessary, starting in 2008 and all the way through to 2045. He said given Gas Strategies forecast, price ratios had to be fairly high compared to what has been seen historically, for LNG to be of higher profitability relative to the overland route.

MR. SMITH said market performance would need to be different along with different behaviors within the Asian LNG market. The Gas Strategies report generated a tie of prices between continents. Under the base case LNG price forecast projected by Gas Strategies, the ratio needs to be 10/1 or higher for the State to benefit from a LNG project. For the producers it is almost 12/1 or higher depending on the discount rate. Prices need to be at the top end of what has been seen historically for the parties to benefit given these price relationships. The price differential between Asia and the United States has to be slightly higher than \$6 dollars for LNG to be more favorable than an overland route because of the capital cost difference.

CHAIR HUGGINS asked if there were questions from the committee. Hearing none the committee moved on to the next agenda item.

1:52:38 PM

COMMISSIONER GALVIN said a question was asked a few days ago about a section of the Request for Application (RFA) regarding "parole evidence" and its relationship to potential interpretations of the license. As background, he said, the license was a combination of multiple documents. In the history of contract law certain practices were developed that courts use to interpret contracts. One practice is the courts will look at the document itself for interpretation, not at what is called "parole evidence." Parole evidence consists of other agreements outside of the contract itself that conflict with or add to the provisions of the contract. There have been a number of exceptions that have evolved over time. One exception is that parole evidence can be used when there is ambiguity in the contract or something needs to be explained. He said there had been courts that found outside evidence would not be allowed, only applies when a wholly integrated contract exists; where all the documents are captured in one memorialization of the agreement. Because of that finding lawyers starting inserting merger clauses into agreements. A merger clause states the entire agreement is an integrated document. Some go farther and say no parole evidence will be allowed. This clause is now found in the fine print of many documents.

1:54:15 PM

COMMISSIONER GALVIN said concerns had been voiced that because the license constitutes the statute, the RFA, and the application, and aspects of the application particularly reflect expectations of TC, that could be interpreted in the future as being an additional condition. He said TC stated explicitly that was not their intent. It would take a court to find the license is uncertain or ambiguous. If this occurred the court would then look for additional evidence and at that point the testimony becomes relevant. He believes the language of the application and license is clear.

1:58:22 PM

REPRESENTATIVE GRUENBERG asked if the issue could be resolved by including a clause that says "the document shall be construed in favor of the State and against the lessee" rather than go to trial.

COMMISSIONER GALVIN answered that had been done in the case of the AGIA license. Further, the license says if there is any conflict, the statute is the clearest statement of the State's commitments and obligations, followed by the RFA, then the

application. The State's declaration of what the agreement is ends up controlling any issue.

REPRESENTATIVE GRUENBERG asked if under the current clause the State's interpretation would prevail.

COMMISSIONER GALVIN said the license itself, and the RFA made clear the statute controls, followed by the RFA, and finally the application.

[2:01:11 PM](#)

REPRESENTATIVE HAWKER said he was the one who raised the question about the nature of the license. Commissioner Galvin's explanation makes sense that should terms be disputed a court would look at the testimony to solve the problem. He is concerned ambiguity still exists.

COMMISSIONER GALVIN suggested looking at the transcript from the previous testimony. His recollection was that he clearly articulated the State did not have to do anything more than what was obligated in the statute and the RFA. He recalled Mr. Palmer was asked if he agreed with that assessment, and he said yes. He also recalled during Mr. Palmer's presentation he said he would expect the State to do a number of different things according to the State's sovereign authorities. They were asked if they would attempt to get out of the license obligations if the State did not do those things. Mr. Palmer said no. Commissioner Galvin believes the record is extremely clear.

REPRESENTATIVE HAWKER asked if it would be prudent for the State to define the roles and agreement among the parties in a binding contractual relationship.

COMMISSIONER GALVIN answered the contract established the obligations. Once the license is issued obligations of the parties will be clearly stated. He also observed that regardless of what was done, someone may perceive ambiguity. He believes the substance of the license and the obligations of the parties are clear.

REPRESENTATIVE HAWKER replied he could see the same facts and come to different conclusions. He thinks the lack of a defined document will create ambiguities rather than resolve them.

COMMISSIONER GALVIN suggested addressing particular ambiguities that Representative Hawker perceives.

[2:07:34 PM](#)

REPRESENTATIVE ROSES asked whether the bullet line would conflict with the TC agreement.

[2:08:42 PM](#)

COMMISSIONER GALVIN said the question of what will constitute a conflicting project was not a question of ambiguity in the license itself. There is nothing in the TC application that would inform that particular decision.

REPRESENTATIVE ROSES said he would like an answer to his question before making a decision because it was important to those who had concerns about in-state gas. He hopes for an answer from the administration as well as TC so there is clarity between the parties.

COMMISSIONER GALVIN agreed that clarity on this issue was needed before a vote and he would obtain the information requested.

[2:11:19 PM](#)

REPRESENTATIVE GARA said the parole evidence rule did not have anything to do with the disputes that will come up about the statutory terms in AGIA. It will involve interpretation of contract terms. He does not share Representative Roses' concern that the statute is ambiguous. He accepts the interpretation that there is no danger, but suggests it would not hurt to have a memorandum of understanding (MOU) to address the concerns of those who believe the statutory provision is ambiguous.

[2:13:17 PM](#)

COMMISSIONER GALVIN replied the technical team would get together and get back to the committee.

[2:13:28 PM](#)

SENATOR FRENCH said what was being expressed was a "healthy dose of Alaskan skepticism." One ambiguity he sees in the license says "including licensee commitments and all responses to additional information requests." When he read that statement he thought every exchange between the Legislative Budget and Audit Committee (LB&A) and TC needed to be included. He said an administration official said LB&A responses did not count which did not seem clear in the license. He also thinks the record needs to be supplemented by posing some questions to a TC representative about their interpretation of what a competing project is and what it means to offer assistance. He believes there is still plenty of time to do this.

[2:16:20 PM](#)

COMMISSIONER GALVIN replied he appreciated the concerns and will try to provide responses to perceived ambiguities.

[2:16:56 PM](#)

REPRESENTATIVE HAWKER said he shared Senator French's concerns. He has been involved in many business contract interpretations and disputes over what something meant. He asked if someone could open up the whole body of debate that led to the creation of the AGIA statute.

COMMISSIONER GALVIN replied those kinds of questions could not be completely avoided. There will be a multitude of options for dealing with what is found in the analysis of the project. He agrees that further discussion is necessary so the body is comfortable with the outcome.

[2:19:57 PM](#)

REPRESENTATIVE HAWKER said his real concern was with the questions that would arise in the future that are beyond contemplation today.

COMMISSIONER GALVIN replied the relationship established through this license is the end result of a competitive process put into place with passage of AGIA. Most people think everything has been covered by the time a contract is signed. He said 80 to 90 percent of contracts probably go through their whole term without dispute. Some end up being disputed because there was not enough work done up front or because times change and people want to interpret things differently.

[2:23:25 PM](#)

SENATOR MCGUIRE said this was one of the largest projects in the world and she does not think things can be left to conjecture. She is particularly concerned about any projects that fall outside of what is permitted by TC. She suggested the Judiciary Committee could highlight areas of concern and a MOU could memorialize intent.

[2:25:52 PM](#)

REPRESENTATIVE GRUENBERG commented that significant concerns had been expressed and he believed the contract must be written as clearly and concisely as possible.

COMMISSIONER GALVIN stated he thought care needed to be taken about how this discussion was being characterized. He does not want to give the public or the Legislature the impression that

the document is ambiguous or full of uncertainties. The administration thinks the license documents are clear and they have not heard a legal opinion that differs. Senator French raised an issue regarding what documents were included in the interpretation of the words of the license. The administration will provide information why they believe it is documents limited to interactions between the administration and TC. He will continue to work towards increasing confidence in the document by clarifying language relating to competing projects.

[2:29:38 PM](#)

CHAIR HUGGINS asked if Commissioner Galvin could satisfy some of the concerns stated so when people vote they know what they're voting for.

COMMISSIONER GALVIN replied "yes sir we will."

[2:30:31 PM](#)

SENATOR MCGUIRE said the concern she had was by granting the license they are obligating the State to terms that need to be clear.

[2:31:14 PM](#)

REPRESENTATIVE DOOGAN asked how many options were available to them within the next sixty days.

CHAIR HUGGINS replied he was asking for remedies that were reasonably available within the current time frame.

[2:32:47 PM](#)

REPRESENTATIVE KELLY said he would like to know whether there were legitimate legal concerns about going to a contract.

[2:34:33 PM](#)

CHAIR HUGGINS asked if there were further questions or comments. Hearing none he proceeded to agenda item five, Net Present Value (NPV) Analysis.

[2:35:53 PM](#)

CHAIR HUGGINS called a brief at ease.

[2:36:37 PM](#)

COMMISSIONER GALVIN introduced the presenters for the next agenda item; NPV and likelihood of success of the TC application.

[2:39:24 PM](#)

TIM ROMER, Managing Director, Goldman Sachs, Los Angeles, introduced the associates working on the project and gave a summary of the company's role in the project. They were asked to assess the proposal from the standpoint of financing. Their findings are outlined in "Financial Review of TransCanada and Proposal" (June 10, 2008)).

CHAIR HUGGINS asked if Goldman Sachs had any previous experience with the State on this gas line project.

PAUL BLOOM, Vice President, Goldman Sachs, said the company had a long history working with the State on a variety of matters and had been informally consulted by various administrations on the gas line.

[2:41:42 PM](#)

MR. ROMER said their task was to look at the financial viability of the project. They considered it from two perspectives. First, given the nature of the project if it could be financed and the capital raised in the timeline needed to build the project. Second, if TC has the capacity to meet the financial obligations involved with the project and AGIA. Goldman Sachs concluded there are very strong economic underpinnings to the project and after looking at a large number of factors they believe the project is financeable. Additionally, for a project of this size, ongoing considerations need to be managed through time.

[2:43:57 PM](#)

MR. ROMER, referring to page 3 of the document, said shipping commitments, loan guarantees, an overall strong package offered to the lenders, and a cooperative market were necessary components for success. They believe the project can be financed given these considerations.

[2:44:24 PM](#)

CHAIR HUGGINS asked about use of the term "cost overrun surcharge."

MR. ROMER said his understanding of the tariff structure was if there was a cost overrun to the project it would be built into the tariff on a "go forward" basis.

MR. BLOOM said the federally guaranteed cost overrun loan laid out in the TC proposal would be a loan guaranteed by the federal government and repaid through a surcharge mechanism in the tariffs.

[2:45:21 PM](#)

CHAIR HUGGINS asked what the mechanism for paying overruns would be if a federal guarantee was not in place.

MR. ROMER replied the legislation put in place for the federal guarantee for cost overruns was in compliance.

COMMISSIONER GALVIN clarified that nothing suggested the federal loan guarantee was going to be expanded or the amount of the loan guarantee was going to be raised by Congress. The question is whether they will hold off on exercising the full extent of the loan guarantee in their initial financing and reserve a certain amount in order to have a lower cost overrun debt cost. If the cost overrun use of the loan guarantee is not in place overall project financing shifts and use of the loan guarantee for initial financing is more than what is being assumed. He said it actually makes that financing more attractive.

MR. ROMER agrees with Commissioner Galvin's statement. If there is a cost overrun there must be access to capital to pay for it. An effective use of the federal loan guarantee is to withhold some of it in that circumstance.

SENATOR STEDMAN asked the presenters to expand on the risk shifting dealing with cost overruns.

[2:48:05 PM](#)

MR. ROMER replied he was not sure what risk shifting was being referred to.

SCOTT SMITH, Black & Veatch, said Black and Veatch looked at a tariff for the pipeline with and without cost overruns. For a 4.5 bcf pipeline to AECO and a 20 percent increase in costs, the tariff went from \$4.73 to \$5.35 if the loan guarantee was in place. If not, the tariff would go twenty cents higher to \$5.53. Scenarios were considered associated with cost increases with and without the loan guarantee to understand the implications should it not be approved by the federal government. They also looked at NPV benefits associated with the loan guarantee.

[2:49:54 PM](#)

COMMISSIONER GALVIN said the term "risk shifting" associated with cost overruns was a mechanism proposed by TC to shift some of the risk borne by the shippers onto the pipeline by having it be completely debt financed.

SENATOR STEDMAN noted the closing paragraph on page 169 [of the May 22, 2008 NPV Analysis] says "If the U.S. loan guarantee were not included in the proposal, TransCanada's net present value would increase significantly with cost overruns...." He said there were winners and losers as far as who would benefit from the present value of the cash flows and it was necessary to be clear about the scenarios and who benefits.

[2:51:21 PM](#)

COMMISSIONER GALVIN agreed. He said TC was proposing to actually lower their NPV by using the federal loan guarantee. This is the risk shifting referred to in the document and is value added provided by TC's proposal that the State would not otherwise receive.

[2:51:48 PM](#)

CHAIR HUGGINS asked for an overview of the federal loan guarantee parameters.

MR. ROMER answered the federal loan guarantee was a powerful and beneficial feature to this project and helped from a number of perspectives. One benefit is the ability to use the lower cost debt available and to use it as a mechanism to cover overruns on a much lower cost basis. He said the law was clear about the Department of Energy (DOE) governing and issuing the guarantee and a variety of conditions were set forth for compliance. There are limitations of how much nominal dollar amount and how much as a percent of the project the loan guarantee can cover.

[2:53:58 PM](#)

CHAIR HUGGINS said the term "bridge shipping" with federal loan guarantees had emerged and he asked for thoughts about that concept.

MR. BLOOM said they assumed the bridge shipper concept would not be implemented and ignored it in the analysis. They understood it to be completely separate from the loan guarantee.

CHAIR HUGGINS asked if Mr. Romer and Commissioner Galvin could clarify any discussions about federal loan guarantees that they may have participated in.

MR. ROMER said Goldman Sachs looked at what was in the legislation and did not participate in any specific meetings with the government on loan guarantees.

COMMISSIONER GALVIN replied the administration did not participate in any discussions regarding the "bridge shipper" idea. The administration has talked a great deal with DOE about the federal loan guarantee program and implementation. The commissioner feels fairly confident in that relationship and said the loan guarantee is there for a contract that qualifies. The use of loan guarantees for cost overruns is not explicitly stated in the statute, but they have determined that it is allowable.

MR. ROMER clarified the term "cost overrun" was terminology used by the federal government. What the federal government provides is a guarantee to a bank loan within the two year window of the start of the project. The guarantee makes it easy to get a bank or group of banks to provide funding knowing the federal government backs up the loan.

[2:57:53 PM](#)

MR. BLOOM added the language in the federal statute defining a qualified project included "construction and completion of pipelines." He said it seemed clear a guarantee of loans dedicated towards construction completion was within the bounds of the statute.

[2:58:22 PM](#)

SENATOR STEDMAN said cost overruns had come up previously as a major concern. He said some had participated in a mega-project seminar with the administration a couple years ago and were told 20 percent cost overruns on megaprojects were normal and would still be considered a success. He said it would be conceivable to have a 30 to 50 percent overrun on a project of this magnitude. He asked if that was a risk exposure to be concerned about.

[2:59:14 PM](#)

MR. BLOOM replied the project finance market was extremely sensitive to a number of risks, construction and completion paramount among those. It is common for large projects to have substantial overruns. That is why Goldman Sachs believes TC's proposal to preserve a portion of the federal loan guarantee for cost overruns will be extremely comforting to the markets. It was not clear in the proposal how much would be reserved, but Goldman Sachs suggests reserving as much as \$16 billion of the 28 billion federal loan capacity against cost overrun risk.

[3:01:02 PM](#)

REPRESENTATIVE HAWKER said he was concerned about the optimism he was hearing juxtaposed against the caution advised throughout the written report.

[3:02:26 PM](#)

MR. ROMER answered it was difficult to summarize a hundred page report on one page. They approached this analysis by looking at the fundamental soundness by which the whole project is put together. An implicit assumption was there were reasonable and rational people operating on all sides. At one point in time, there was clear intent from the federal government that they would step forward in a way to help this project succeed. In Goldman Sachs view the best role for the federal government to play is in cost overruns.

REPRESENTATIVE HAWKER encouraged his colleagues to study the report.

[3:05:18 PM](#)

REPRESENTATIVE SAMUELS quoting the Black and Veatch "likelihood of success" report said "in general, TransCanada's proposal does not offer shippers strong protections from cost overruns."

[3:07:01 PM](#)

MR. ROMER said Black and Veatch could clarify the context of that statement. He said there was risk in every project and their goal was to provide information so risks were understood. He said he was not troubled by the Black and Veatch statement because shippers will weigh the risks and benefits and decide whether to participate based on an economic interest. A risk in and of itself is not a problem unless it is put into a context of the totality of the project and all associated costs and benefits are weighed.

[3:08:37 PM](#)

MR. BLOOM clarified they were looking at the risks investors and lenders would bear not specifically the shippers.

COMMISSIONER GALVIN said a future Black and Veatch presentation addressed risk allocation issues and their impacts. He said cost overrun risk transfer was not a requirement of AGIA but was one thing to consider as part of a likelihood of success. The next presentation covers the impact of cost overruns on potential NPV to the producers.

[3:10:21 PM](#)

SENATOR STEDMAN reflected that there were a lot of concerns about cost overruns on the previous proposal and substantial concern on this proposal. Given the uncertainties of the risks of a project of this magnitude, striking a balance between risk allocations is likely to be critical in the ability to obtain capital commitments for the completion of the project.

[3:12:02 PM](#)

REPRESENTATIVE ROSES said he wanted to go back to the question of whether the project is financeable. He was concerned about investors willing to commit to the project because the financial model was speculative. He wonders what the likelihood of financing will be if the commitment is two to 2.5 bcf and the rest was speculative.

[3:15:37 PM](#)

MR. ROMER replied they looked at a number of alternatives and did a variety of analytical sensitivity cases. They came up with a conservative base case, did some more detailed analysis and concluded that it was financeable. He said a better sense of what can be built and what is affordable will come at open season.

[3:16:36 PM](#)

COMMISSIONER GALVIN said the information presented about the opportunity for exploration and additional finds was not meant to imply that was what was necessary to get the project to sufficient capacity for financing.

[3:17:56 PM](#)

REPRESENTATIVE ROSES said he appreciated that clarification. He said it seems all assumptions were built around a 4.5 bcf and asked if there was enough flexibility in the AGIA legislation for the project under different capacities.

[3:18:57 PM](#)

COMMISSIONER GALVIN replied TC said they would accommodate everything from 3.5 bcf/day up through 5.6 or 5.9. Although the so called "proposal" or "application base case" is 4.5 it was examined across a range of options to ensure its viability.

[3:20:40 PM](#)

REPRESENTATIVE HAWKER said he was still wary about the optimism versus the serious cautions presented in the report in addition to construction completion, risk allocation to lenders, clarity on reserves, and contract length, that had not yet been addressed.

[3:22:01 PM](#)

MR. ROMER responded there are many large projects built which go through their own evolutionary process. The Goldman Sachs report outlines typical project financing and how projects achieve an investment grade rating. He said they wanted to make sure the benefits and risks were understood. They feel they are laying out the way things are when a big project is considered which can be perceived as cautionary. He said every project has construction risk; the question is how the risk is managed. In this case they looked at the sponsor, their experience and capabilities for building pipelines, and at other mechanisms in place such as access to capital and the federal loan guarantee. He said the best way to look at this project was to compare how it has been done elsewhere, then identify the specific unique features to this project and outline a way to mitigate risks.

REPRESENTATIVE HAWKER thanked Mr. Romer for his response and said he agreed with it.

MR. ROMER said he wished he had a crystal ball but a decision must be made based on the project and its fundamental tenants and whether the sponsor can do what it needs to do.

[3:26:16 PM](#)

REPRESENTATIVE RAMRAS thanked Goldman Sachs for their participation and asked them to talk about their conversations with the FERC.

MR. ROMER answered they had had no conversations with the FERC.

REPRESENTATIVE RAMRAS asked him to talk about the risks associated with Arctic gas projects globally.

MR. ROMER replied they had looked at the project from a financing perspective. He asked for clarification on the question.

[3:27:20 PM](#)

REPRESENTATIVE RAMRAS said he was interested in risks and cost overruns associated with an Arctic gas project peer group.

[3:28:02 PM](#)

MR. ROMER suggested the question may be more appropriate for an engineering or construction expert.

REPRESENTATIVE RAMRAS said no, his question was about construction and completion risks associated with Arctic gas projects globally and identifying the peer group for this particular project.

MR. ROMER said they looked at the project from a financing and lending perspective. The unique nature of the project and use of the federal loan guarantee, as set forth under the TC proposal, led to the conclusion that access to capital to complete the project is likely.

[3:30:07 PM](#)

REPRESENTATIVE RAMRAS said he was looking for a definition of the peer group used for this particular project to assess the construction and completion risks.

MR. ROMER said he did not believe he was the right person to answer the question since his firm looked at the project from a financing perspective.

CHAIR HUGGINS asked Representative Ramras to talk with the consultants during a break to get an answer to his question.

[3:31:57 PM](#)

REPRESENTATIVE KELLY asked if TC proposed a reasonably robust project.

MR. ROMER replied the project had very sizeable NPV benefits to the participants, good cash flow abilities so that debt would be repaid, and an attractive return to the equity sponsors. The firm looked at TC and found the financial capacity and interest to do the project.

REPRESENTATIVE KELLY asked if cost overrun elements would apply to whomever built the project.

MR. ROMER replied yes.

REPRESENTATIVE KELLY asked if TC is a fourth quartile performer.

MR. ROMER said he could not respond to quartiling.

REPRESENTATIVE KELLY asked if 500 million was a reasonable investment in the project.

[3:35:45 PM](#)

SENATOR THOMAS asked if the loan guarantee would provide a more favorable rate compared to other debt money.

MR. BLOOM answered yes because any loans guaranteed by the federal government trade close to the treasury rate. He said bonds backed solely by the revenues of the project would be rated somewhat lower and would carry a higher interest cost.

SENATOR THOMAS asked if the federal loan guarantee could be applied to offsetting debts other than cost overruns.

MR. BLOOM replied it would depend on the actual terms of the loans, how they were structured and how the guarantee was overlaid. The most conservative analysis assumes the loan guarantee sits without being used. As the project progresses an independent engineer hired by the bond trustee and the lenders looks over the project from financing through completion. The engineer will inform lenders, investors, and rating agencies about construction risks and do comparisons against other projects. As the project proceeds through construction, the equity sponsors can make a case to the engineer that some of the cost overrun capacity should be released.

[3:39:05 PM](#)

MR. BLOOM said as a project proceeds through construction the risk abates and equity sponsors would seek to apply some of the federal loan guarantee preserved for overruns to ongoing project costs. He does not see a circumstance where federal loan guarantee capacity would be left on the table.

MR. ROMER said another way to think about using the loan guarantee was as a way to refinance other debt that may be more expensive.

[3:40:18 PM](#)

SENATOR THOMAS said he did not think anybody was planning to let the cost overrun beyond what would be considered reasonable.

[3:41:28 PM](#)

REPRESENTATIVE WILSON asked if the federal government had indicated availability of the loan guarantee.

COMMISSIONER GALVIN replied no, DOE would articulate a position after receiving a project discussion package. He said the State must look at the entire package of risk profile to see the impact of the loan guarantee on overall project viability. Commissioner Galvin believes it is more likely the federal

government would prefer the loan guarantee be held out for cost overruns.

[3:44:18 PM](#)

MR. ROMER added the TC proposal to use the federal loan guarantee in this way was a novel idea, but there are other ways to manage construction risk.

MR. ROMER continued to page 5 of the analysis. He said TC was a large, stable company with very durable free cash flow. Free cash flow is very important because the company will need to provide an equity contribution at some point in the future. Goldman Sachs concluded TC could meet that obligation and have the financial capacity to do so. They also concluded this pipeline has a very positive long term impact and substantial financial benefit to TransCanada.

MR. ROMER said they also examined whether TC could issue debt to raise the amount of money needed for the project. Goldman Sachs believes they can, but rating agencies might have some concerns. There is a risk that TC's ratings could be downgraded under complete debt borrowing. He said it was also possible they would not be a downgraded because TC had a lot of time to plan and raise the capital in anticipation of the contributions they will need to make. Another issue is what exposures TC might have, what is called "the trough." He said the most difficult point in time for TC will be the construction process. After that the cash flow becomes positive.

MR. ROMER said TC's ability to contribute more capital if there was a cost overrun was also considered. Goldman Sachs thinks TC has the ability, but again, it could be a rating agency concern. He said the federal loan guarantee would help mitigate this concern. In summary, he said TC was an "A" rated company with a strong investment grade rating. Assets total about \$30 billion dollars and revenues about \$9 billion. The company has much experience building pipelines and this project is core to their mission and long term goals. He said not only do they have the financial capacity, but the value and importance of the project to them is substantial, so they have incentive to make the project succeed.

[3:49:05 PM](#)

CHAIR HUGGINS referring to page 5 of "Financial Review of TransCanada and Proposal (June 10, 2008)," asked Mr. Romer to state the top three things TC could do to fortify its financial strengths.

MR. ROMER replied TC will need to anticipate the equity contributions they will need to make to the project and start to raise that money early. In the last two years TC has raised over \$8 billion capital dollars, both debt and equity, for various projects and has demonstrated the capacity to raise capital in substantial amounts.

[3:50:22 PM](#)

REPRESENTATIVE FAIRCLOUGH asked Mr. Romer to describe how TC was related to a subsidiary that was formed with a contingent liability close to \$10 billion dollars. The new company has no assets so she wondered how that related financially to the market and the potential downgrade.

MR. ROMER said TC as a parent company did not have the assets of the prior entity in which they were a partner so those assets were not reflected in the assets or liabilities of TC.

REPRESENTATIVE FAIRCLOUGH said she just heard TC was financially sound and had large assets. She asked what the entity, entering into a contract with the State, had in the form of assets.

[3:51:01 PM](#)

MR. ROMER said he did not know the answer to that question.

REPRESENTATIVE FAIRCLOUGH said she would like to know the financial credibility of the TC subsidiary, which does not appear to have any assets of its own.

[3:52:46 PM](#)

COMMISSIONER GALVIN replied TC had committed all necessary resources of their corporation to TransCanada/Alaska. He said TC was analyzed to ensure all the necessary assets were available to finance the project.

[3:53:11 PM](#)

REPRESENTATIVE FAIRCLOUGH said TC was involved with a subsidiary with a contingent liability of about \$10 billion dollars which was not reflected in the financial information. She said TC just went through an acquisition that has the financial markets "sputtering a bit" and looking at downgrading. She asked why the \$10 billion dollars was not of concern and why it does not affect TC's potential contingent liability and borrowing ability.

[3:54:22 PM](#)

COMMISSIONER GALVIN said the contingent liability issue was not related to financial statements or accounting methods of TransCanada Corporation or TransCanada/Alaska. Goldman Sachs and outside counsel determined the liability was not a risk to this project.

REPRESENTATIVE FAIRCLOUGH stated it appeared the administration was unconcerned about the \$10 billion dollar potential contingent liability.

COMMISSIONER GALVIN said Goldman Sachs looked at the contingent liability issue from a financial perspective, and Gruman/Charwig (ph) reviewed liability and rate making tariff issues. All parties concluded the risk and exposure of the liability was not necessarily an issue associated with the financing, potential partnerships, tariff, and ultimately, whether to issue a license.

[3:56:08 PM](#)

CHAIR HUGGINS asked Goldman Sachs to respond to the issue presented by Representative Fairclough.

MR. ROMER replied that contingent liability relating to the partnership entity was not reflected in the balance sheets of TC. He does not believe the TC accountants consolidated a thirty year old partnership liability into their financial statements because they do not view it as a true liability.

MR. ROMER said TC has committed their full resources in order to make the project a success. Goldman Sachs looked at the capacity of the parent company. He said it was common for companies to use subsidiaries.

MR. ROMER added TC was put on credit watch because they made a commitment to buy a power generation plant called Ravenswood; a \$2.6 billion dollar acquisition. He said it was very common after the announcement of an acquisition of that size for rating agencies to announce they are going to take a closer look. He believes Standard and Poor's has taken TC off credit watch because they demonstrated how they will finance the acquisition. He said Moody's has not concluded their review. But TC is an "A" rated company, strong in comparison to worldwide pipeline companies. Goldman Sachs is not concerned about "credit watch" status because it is a normal course of action.

[3:59:08 PM](#)

REPRESENTATIVE FAIRCLOUGH appreciated clarification of her questions. She asked if TC was limiting their liability by forming this smaller subsidiary company.

COMMISSINOR GALVIN answered in general, yes by forming a subsidiary they do limit their liability other than to those things specifically outlined as liabilities under the license.

REPRESENTATIVE FAIRCLOUGH said she would still like to know how much TC as the parent company is putting into the subsidiary company. The State has not formed a subsidiary to limit its liabilities, but has pledged the full faith and credit of the State and all of the assets that come under that umbrella.

CHAIR HUGGINS said Representative Fairclough brought up an excellent point and the question will be stated in writing to the administration who will work with their experts to get an answer.

[4:00:37 PM](#)

REPRESENTATIVE GARA said he was trying to decide whether the loan guarantee was an issue that should concern him. He is not worried about TC seeking out and using the best credit possible and there is a requirement under AGIA that the project be financed with at least 70 percent debt. He does not believe TC would willingly give up a debt instrument that is valuable to them and if the loan guarantee cannot be used for cost overruns it will be used elsewhere. The State's protection is the tariff is kept low by the loan. If TC decides to reject a loan guarantee that absolves them of any liability that is their business.

[4:02:01 PM](#)

MR. ROMER said Representative Gara's assessment was generally correct. The value of a loan guarantee is it reduces the cost of debt which is beneficial to the project. There is no reason to think TC would not seek to maximize the use of that loan guarantee.

REPRESENTATIVE GARA asked if there were any concerns about the loan guarantee.

MR. ROMER said from Goldman Sachs perspective the legislation is clear and the loan guarantee was available. It will be necessary to outline details with the DOE before the guarantee is issued.

[4:03:56 PM](#)

REPRESENTATIVE RAMRAS said there was wide speculation that no gas will be nominated during the open season anticipated in twelve to eighteen months. He asked what exposure the State may be subject to given TC's participation in other projects, and what rights the State has to protect itself from risk from the company making poor decisions.

[4:05:20 PM](#)

MR. ROMER said Goldman Sachs looked at TC's current capacity and capabilities. He said TC has demonstrated the ability to raise substantial amounts of capital to fund their growth strategy. It is also important to look at the importance of this project to them. Goldman Sachs looked at four different ways TC could come up with the capital and the way they might do it. After developing those hypothetical's they examined how TC's income and balance statement might look, and it looked very attractive. TC has shareholders to which they are accountable and they need to operate in a way to preserve their capacity to deliver.

[4:06:59 PM](#)

REPRESENTATIVE RAMRAS said the same could be said of looking at the past performance of City Bank, Wachovia, Lehman Brothers, etc. He said there was little certainty and if gas was not nominated into an open season he questioned the risk element.

[4:07:32 PM](#)

MR. ROMER responded that Goldman Sachs looked at other big project financing done around the world in different sizes and locales and the fundamental financing credits. He does not believe it is fair to draw corollaries between financial institutions and a pipeline company. A pipeline company and the nature of the business are evaluated differently and the risks are much different. Global energy markets and the Canadian market analysis is also relevant when looking at risks. In Goldman/Sach's opinion TransCanada's competencies and current financial situation prove they can perform the project.

[4:10:02 PM](#)

SENATOR STEDMAN said as AGIA evolved the viability of loan guarantees came up. He asked for Goldman/Sach's opinion on the viability of loan guarantees if Exxon or BP bid on the gas and if these loan guarantees would be of any interest to a firm the size of Exxon. He also asked if Exxon would be able to secure cheaper financing without the loan guarantee.

MR. ROMER said energy and oil markets are doing great but he believed the federal government was doing a little better. He said having the federal government willing to shoulder some risk and provide access to low cost capital can lead to a lower tariff and more successful project.

SENATOR STEDMAN clarified his question with Exxon as the builder.

[4:12:50 PM](#)

MR. ROMER replied as a builder having the capital available to pay your bills was essential. He said if the project company had access to loans backed by the federal government he would sleep better at night.

SENATOR STEDMAN said he was looking for a marginal benefit. Exxon, an extremely large, well run, efficient company didn't express much interest in the loan guarantees. He is not sure there is a lot of financial difference between Exxon and the U.S. government.

MR. ROMER said Exxon was very large, substantial, highly rated entity that has deep pockets and access to capital. But, he does not think Exxon borrows at the same interest rate as the federal government. He does not have the answer to how capital guaranteed by the balance sheet of Exxon compares to the federal loan guarantee. He said he could not answer how producers would value the loan guarantee, but from his perspective U.S. government backing is valuable and highly coveted in the marketplace. The guarantee creates liquidity and benefit to the lenders because of the extra certainty of repayment. Producers might look at the guarantee and determine maybe it has value, maybe it does not. As business people, they will do a cost/benefit analysis and look at costs with or without the loan guarantee.

[4:16:19 PM](#)

REPRESENTATIVE ROSES said he was less concerned about TC finances than if the project itself was financeable. He assumed this analysis was done prior to the announcement by BP and Conoco Phillips of the Denali projects. He said there was also a competing project on the Canadian side of the border in the McKenzie valley. He said Robert J. Reid, who was with TC for thirty-three years before he became president of the Aboriginal Pipeline Group, was concerned that the Alaska pipeline would "kill" the McKenzie Valley project if it got started first. He asked if financing parameters would change knowing there are

competing pipelines having a direct impact on the viability of this project.

MR. ROMER said a fundamental tenant to the success of the financing was shippers showing up in the open season. He does not have expertise in global competitive markets and supply and demand characteristics of gas. He thinks the question has to do with the value and price of gas because of competing projects.

REPRESENTATIVE ROSES added his concern was also with cost overruns. The longer the project is delayed the more potential for higher costs. He said Mr. Rolheiser from Imperial Oil also commented that if both pipelines got going at the same time costs would significantly increase on both projects because of supply and demand and labor needed. Representative Roses asked if Mr. Romer agreed that attention must be paid to monitoring the progress of pipelines in Canada.

MR. ROMER said he could not add further to what he had already said. Others have looked at the economic supply/demand features within North America and globally.

[4:20:26 PM](#)

MR. ROMER said Goldman Sachs covered the key highlights of their report and would answer any other questions.

[4:20:50 PM](#)

COMMISSIONER GALVIN said risk assessment had also been added to the agenda and a slide on this topic was in the Black and Veatch NPV analysis.

CHAIR HUGGINS asked that copies of the slide be made for the members.

COMMISSIONER GALVIN said the information was in the packet on pages 14 and 18. The information shown includes various risk sensitivities for the State and producer, NPV associated with price, cost escalation, percentage assumptions, schedule timelines, capital costs and overruns. He also asked for clarification that his experts would be able to participate in discussions on "FERC Day" in Anchorage.

CHAIR HUGGINS replied he would discuss those details separately with Commissioner Galvin.

[4:23:32 PM](#)

REPRESENTATIVE HAWKER said he wanted to state for the record that his questions about financing issues were no reflection on TC as a corporation but about the risks that would effect any project. As pointed out in the presentation rating agencies say the biggest challenge facing TC right now is the need for more gas. He said the report showed a decline of 2.5 "B" a day between now and 2020. Moody and Standard and Poor's identify the increasing supply risk as the key weaknesses to the entities. He asked what the consequences may be for TC should they not be involved.

[4:26:58 PM](#)

MR. ROMER said this project obviously was valuable to TC, but if they were not involved they would probably pursue a number of projects built into their business strategy.

[4:28:47 PM](#)

COMMISSIONER GALVIN added that AGIA was set up to enable someone to come forward with a proposal so the State could take control of moving the project ahead under favorable terms to the State. TC came forward, he said. He questioned the relevancy of whether or not TC was otherwise motivated to move this project ahead. He thinks recognition of the viability of the project outside of TC's proposal is in order. The analysis shows the project is financeable and something the markets would embrace and bring forward to fruition.

[4:31:42 PM](#)

REPRESENTATIVE SAMUELS said he disagreed with Commissioner Galvin that the question was not relevant. Lesa Adair of Muse Stancil was asked specifically how badly the corporation would be hurt if .5 "B" of gas did not get into their system. He said her models showed it would hurt but not break the back of the corporation. He thinks it is an extremely relevant question in terms of leverage. He also asked how many of the current shippers were also the shippers on the reduced capacity in the TC line.

[4:33:44 PM](#)

CHAIR HUGGINS said some of these concerns would be addressed in summations when returning to Juneau.

[4:34:00 PM](#)

SENATOR THERRIAULT said LNG or gas projects being developed in Northern latitudes like Norway have run into construction problems. He asked with TC in particular, if the risk was lower technologically.

MR. SPARGER said a LNG facility project was inherently riskier than an overland pipe. Risk is not really reduced because the pipe is reduced.

[SB 3001 and HB 3001 were held in committee.]

[4:37:57 PM](#)

CHAIR HUGGINS adjourned the meeting.