

**ALASKA STATE LEGISLATURE**  
**SENATE SPECIAL COMMITTEE ON ENERGY**

July 22, 2008  
1:11 p.m.

**MEMBERS PRESENT**

Senator Charlie Huggins, Chair  
Senator Bert Stedman, Vice Chair  
Senator Kim Elton  
Senator Lyda Green  
Senator Joe Thomas  
Senator Bill Wielechowski  
Senator Thomas Wagoner  
Senator Fred Dyson

**MEMBERS ABSENT**

Senator Lyman Hoffman  
Senator Lesil McGuire  
Senator Donald Olson  
Senator Gary Stevens

**OTHER LEGISLATORS PRESENT**

Senator Johnny Ellis  
Senator Gene Therriault  
Representative John Harris

**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

HOUSE BILL NO. 3001 (efd fld)

"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."

PENDING REFERRAL

**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
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06/10/08	(S)	ENR AT 10:00 AM TERRY MILLER GYM
06/10/08	(S)	Heard & Held
06/10/08	(S)	MINUTE(ENR)
06/12/08	(S)	ENR AT 10:00 AM FBX Carlson Center
06/12/08	(S)	Heard & Held
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06/14/08	(S)	Heard & Held
06/14/08	(S)	MINUTE(ENR)
06/16/08	(S)	ENR AT 9:00 AM ANCHORAGE
06/16/08	(S)	Heard & Held
06/16/08	(S)	MINUTE(ENR)
06/17/08	(S)	ENR AT 9:00 AM ANCHORAGE
06/17/08	(S)	Heard & Held
06/17/08	(S)	MINUTE(ENR)
06/18/08	(S)	ENR AT 9:00 AM ANCHORAGE
06/18/08	(S)	Heard & Held

06/18/08	(S)	MINUTE(ENR)
06/19/08	(S)	ENR AT 9:00 AM ANCHORAGE
06/19/08	(S)	Heard & Held
06/19/08	(S)	MINUTE(ENR)
06/20/08	(S)	ENR AT 9:00 AM ANCHORAGE
06/20/08	(S)	9am - 5pm - Testimony <Invitation Only>
06/24/08	(S)	ENR AT 1:00 PM MAT-SU
06/24/08	(S)	Heard & Held
06/24/08	(S)	MINUTE(ENR)
06/26/08	(S)	ENR AT 1:00 PM KENAI
06/26/08	(S)	Heard & Held
06/26/08	(S)	MINUTE(ENR)
07/01/08	(S)	BILL CARRIES OVER FROM 3RD SPECIAL SESSION
07/01/08	(S)	ENR AT 9:00 AM BARROW
07/01/08	(S)	Heard & Held
07/01/08	(S)	MINUTE(ENR)
07/08/08	(S)	ENR AT 1:00 PM KETCHIKAN
07/08/08	(S)	Heard & Held
07/08/08	(S)	MINUTE(ENR)
07/09/08	(S)	ENR AT 1:30 PM TERRY MILLER GYM
07/09/08	(S)	Heard & Held
07/09/08	(S)	MINUTE(ENR)
07/10/08	(S)	ENR AT 8:00 AM TERRY MILLER GYM
07/10/08	(S)	Heard & Held
07/10/08	(S)	MINUTE(ENR)
07/11/08	(S)	ENR AT 9:00 AM TERRY MILLER GYM
07/11/08	(S)	Joint w/(H) Rules
07/12/08	(S)	ENR AT 9:00 AM TERRY MILLER GYM
07/12/08	(S)	Joint w/(H) Rules
07/13/08	(S)	ENR AT 12:30 AM TERRY MILLER GYM
07/13/08	(S)	Joint w/(H) Rules
07/14/08	(S)	ENR AT 9:00 AM TERRY MILLER GYM
07/14/08	(S)	Heard & Held
07/14/08	(S)	MINUTE(ENR)
07/22/08	(S)	ENR AT 1:00 PM SENATE FINANCE 532

**WITNESS REGISTER**

Bill Walker, Project Director  
Alaska Gasline Port Authority  
Anchorage, AK

**POSITION STATEMENT:** Testified on LNG issues and development.

Craig Richards, Attorney  
Walker/Levek  
Anchorage, AK

**POSITION STATEMENT:** Testified on LNG issues and development.

Radoslav Shipkoff, Director  
Greengate LLC  
2001 L Street NW  
Washington, D.C.

**POSITION STATEMENT:** Testified on LNG issues and development.

**ACTION NARRATIVE**

**CHAIR CHARLIE HUGGINS** called the Senate Special Committee on Energy meeting to order at [1:11:24 PM](#). Present at the call to order were Senators Wielechowski, Wagoner, Elton, Thomas and Huggins. Senators McGuire, Olsen, and Stevens were excused.

**SB 3001-APPROVING AGIA LICENSE**

CHAIR HUGGINS brought SB 3001 before the committee. [This contains discussion of HB 3001(efd)fld) that is pending referral.]

BILL WALKER, Walker/Levek, Alaska Gasline Port Authority, Anchorage, thanked the committee for the opportunity to respond to issues that had been raised about the Port Authority (PA) liquefied natural gas (LNG) project. He said the presentation would focus on two issues, the export license and project economics.

CRAIG RICHARDS, Walker/Levek, Attorney, Alaska Gasline Port Authority, Anchorage, began the presentation on page 3 of the document titled "Alaska Gasline Port Authority, Presentation to Alaska State Senate, July 22, 2008, Juneau, Alaska." He said there were two federal laws relevant to the export of North Slope gas. The first was the Alaska Natural Gas Transportation Act (ANGTA) of 1977. He explained ANGTA required a presidential finding determining price, quality, or quantity of gas to U.S. consumers would not be diminished before exporting North Slope gas to any country other than Canada or Mexico. He said Department of Energy (DOE) assumed the same findings in their analyses as well.

MR. RICHARDS said the second relevant law was in the Natural Gas Act (NGA), which applied to all gas exports. He said the NGA specified the DOE would conduct a public interest analysis before gas was exported. However, he added, for exports to countries where a free trade agreement existed, such as Mexico and Canada, export was automatically granted. He said Alaska was

the only place that had sought approval to export gas, the Kenai facility and Yukon Pacific Corporation (YPC), and a fairly large body of law relating to DOE's view on exporting gas existed because of YPC. He added DOE referred to import regulations for guidance on exporting because "a decent size" body of law existed. He said the Kenai facility had been authorized since 1969, with seven or eight export license renewals or expansions in the last forty years.

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CHAIR HUGGINS asked if it was feasible to partner with the Kenai facility and use the license as the umbrella for two different locations.

MR. RICHARDS said DOE's expansion analysis was not materially different, so it probably was feasible but would go through the same analysis as a new license application.

[1:18:23 PM](#)

SENATOR WIELECHOWSKI asked for a copy of the 12-page legal analysis.

MR. RICHARDS said he would provide a copy.

SENATOR ELTON asked for a more detailed explanation of the 1990 DOE authorization to YPC. He asked if the YPC commitment was transferrable or if a second decision would be required.

MR. RICHARDS replied a second decision would be required. He said when the license was issued to YPC, DOE wanted to make sure the export would not affect the American consumer. He added a precondition to export was that YPC had to file all the gas sale and transportation contracts with DOE for review.

SENATOR ELTON asked if gas could be shipped to foreign markets without a reauthorization by the DOE.

MR. RICHARDS answered the second step was DOE approval of gas sale contracts rather than a reauthorization.

SENATOR WAGONER said he given a copy of the export license during a meeting he had with DOE and was told an updated environmental impact statement would be necessary for the project. Additionally, he said, Senator Stevens doubted Congress would allow North Slope gas exports out of the continental United States.

MR. WALKER thought Senator Wagoner's information was accurate. He reiterated there were two requirements for shipping; giving notice of the first shipment and submitting the contracts and purchase agreements. He said they look forward to meeting with the administration and federal delegation once their project is ready.

MR. RICHARDS said they were confident DOE would authorize shipments because their analysis had not materially changed since 1989. He added there was no way to know what Congress may change in the future and it would have to be addressed at the time.

SENATOR WIELECHOWSKI asked if Congress could legally prevent Alaska from exporting gas to Asia.

MR. RICHARDS answered yes. He said Congress gave the President unilateral authority in 2005 to prevent the export of any type of energy source such as coal, natural gas, oil, etc. A list of export prohibitions was available on the DOE website, he added.

SENATOR WIELECHOWSKI asked if Congress could choose a country to receive exports.

MR. RICHARDS said he was not an expert on that area of the law, but as far as he knew, yes.

SENATOR WIELECHOWSKI asked if there were due process or constitutional arguments for that kind of decision.

MR. RICHARDS replied he was not aware of any, but had not researched that particular question.

SENATOR WAGONER said Congress already prohibited exportation of crude oil and the only place he knew it was permitted was out of Cook Inlet.

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SENATOR DYSON said he agreed with Senator Stevens' assessment that exports to the Pacific Rim would not be approved, at least in the short term. He believed that would be a huge hurdle to get across.

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MR. WALKER said there was an initial prohibition on oil exports out of Valdez that was lifted shortly after Mr. Hickle became governor. He reminded the body that the TAPS pipeline required

an Act of Congress, and certain conditions were necessary for approval. He felt the gas line could be distinguished from the oil line and it would not be necessary to seek an Act of Congress.

CHAIR HUGGINS asked for an overview of how the Port Authority operated with other companies.

MR. WALKER said the PA began in 1999 and began work on a Y-line with Bechtel Corporation in 2000. He said they worked with Sempra who had the only LNG receiving terminal on the West Coast, and were currently negotiating with Mitsubishi Corporation.

[1:34:02 PM](#)

MR. RICHARDS said deregulation of oil exports that began in the late 1970's currently drove DOE analysis and decision making. Referring to page 4, he said DOE wanted to minimize federal involvement and allow market forces to define energy markets.

SENATOR ELTON said TransCanada (TC) was committed to building a line to Valdez if owners of the gas were willing to commit it. He assumed that commitment would be predicated on market factors such as Asian markets, how long contracts might be, and prices. He asked if those kinds of market forces were compelling to the PA.

Mr. WALKER said they were encouraged by what they heard from TC concerning open seasons, but still trying to "increase our comfort level" on the issue. He said they believe the market forces are such that a shipment of gas to Valdez for a LNG project would be successful.

[1:38:36 PM](#)

SENATOR ELTON said it might be easier for the PA to work under the AGIA umbrella but nothing prohibited them from arranging financing for a separate project.

MR. WALKER agreed. His concern was the PA would not be able to put together a project and receive the kinds of advantages, benefits, and incentives that were available under AGIA and a relationship with the State of Alaska.

MR. RICHARDS added the exclusivity provisions of AGIA prevented the state from cutting a deal that made another project viable if there were particular tax inducements or other things the project sponsor wanted.

MR. RICHARDS described the DOE public interest analysis outlined on page 5 of the report.

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CHAIR HUGGINS announced Senators Ellis, Therriault, Dyson, and Representative Harris were present.

SENATOR THOMAS said he was concerned about what DOE or Congress might do if a dramatic change occurred sometime during the course of the license period.

MR. RICHARDS said in the past DOE had never inserted re-open clauses in export licenses, but probably could do that if they wanted to. He added, the President had the power at any time to stop exports.

SENATOR THOMAS said if that were the case it would mean there was a market in the U.S. that was not being met. He said the flow of gas would not stop, just be directed to a different place.

Mr. RICHARDS agreed. He said he could not imagine exports being prohibited unless there was some sort of national crisis.

1:43:21 PM

SENATOR WIELECHOWSKI asked if the Canadian government had similar authority to prohibit the import or export of gas.

MR. RICHARDS said he did not know but he thought the U.S. had a free trade agreement with Canada.

CHAIR HUGGINS said work was continuing on arranging meetings with Canadian representatives to answer those kinds of questions.

MR. RICHARDS continued explaining the DOE public interest analysis shown on page 5 of the report. He said DOE had addressed many of the public interest issues discussed that day for the YPC and Kenai licenses.

MR. RICHARDS continued on to page 6 of the report. He said DOE took a very broad view of potential domestic supply. He said in 1989, TC argued for DOE to limit their view of domestic reserves available. Instead, DOE said they expected the historical trail of new discoveries being found to continue, and included an allowance for nonconventional gas sources, such as tight sand,

shale, coal seams, and enhanced recovery gas. In 1989, he said, DOE found there was enough domestic gas and imports weren't necessary so export of gas from Alaska was not an issue. He thought today it was unclear where DOE would land.

SENATOR ELTON asked how much gas was imported now compared to 1989.

MR. RICHARDS said he did not know.

MR. WALKER said they did not have import figures. Instead they had focused on new gas finds being developed. He said according to forecasts there will not be a gas shortage in the Lower-48 in the near to distant future and DOE would take that into consideration.

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MR. RICHARDS continued to page 7 of the report. He said the second question DOE would ask was if an alternative source of supply was available if there was not sufficient domestic supply to meet projected demand over the term of the license. He said DOE thought it was unduly simplistic to conclude that export necessarily meant less gas would be available to the Lower-48. He also believed that even if that were the case, alternative supplies were available.

SENATOR WAGONER asked what the current LNG receiving capability was in the U.S.

RADOSLAV SHIPKOFF, Director, Greengate LLC, Washington, D.C., said recently the ability of the U.S. to receive LNG had expanded. He said that was primarily because prices in the Lower-48 which was well supplied with gas, had not been as attractive as prices in Asia and Europe.

SENATOR WAGONER asked what the excess receiving capacity was.

MR. SHIPKOFF said he did not know the exact number, but thought most of the capacity was not being utilized.

MR. RICHARDS said he had seen information on the FERC website and thought the number was 22 bcf.

CHAIR HUGGINS said he thought FERC would likely agree with the information presented.

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MR. RICHARDS said they felt strongly that even if DOE determined not enough domestic supply was available to meet demand over the projected term of the license they would find there was an alternative supply available.

MR. RICHARDS discussed some miscellaneous issues that would be considered. He said environmental issues would not really affect an export license and Alaska's interests weighed in favor of granting a license.

MR. RICHARDS moved on to page 8 of the report. He said the overwhelming emphasis was on free trade in energy and consequently they had no reason to believe free markets would not be allowed to work.

MR. RICHARDS also mentioned the DOE considers the impact of balance of payments and trade deficits to various countries from export. In the past, he said, national leaders felt exporting Alaska's gas helped offset some trade imbalances.

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MR. RICHARDS continued to page 9 of the report and discussed the impact Alaska's gas sales would have on U.S. prices. In the YPC decision, DOE looked at whether or not exporting Alaska's gas would lower prices to U.S. consumers. They concluded, he said, the studies of Alaska North Slope (ANS) gas availability and economic comparisons between projects were irrelevant. He said DOE did look at whether there was an alternative supply available that could be delivered at expected prices, and if so then ANS gas would not have an impact on Lower-48 prices. He added that by 2030 non-conventional gas will supply approximately half of all U.S. gas and Alaska's gas was not "the tail that wags the dog" on energy prices in the Lower-48.

MR. RICHARDS went on to page 10 of the report. He said in DOE's opinion the market would decide what project eventually was developed and where the gas would go. He said any development of North Slope gas was a positive thing because it would encourage assessment of the North Slope potential. He added DOE viewed opening up the basin via a LNG project as a positive thing regardless if it went before or after a Canadian project.

MR. RICHARDS concluded with page 11 of the report and said the PA believed the YPC license would be honored after the preconditions were met.

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SENATOR DYSON asked if Sempra was back on board with the PA and if that was tied to their receiving plant in Northern Mexico.

MR. WALKER said that was a possibility though the plant was not tied to their participation. Since Sempra had the only receiving terminal he did not think it was a stretch to conclude there could be a relationship between Alaska gas and that terminal.

SENATOR DYSON asked if gas shipped to an LNG receiving station in Northern Mexico that then ships to the California system was still regulated by the Jones Act.

MR. WALKER answered yes and they had considered that by teaming with BGT, who owned eight U.S. built Jones Act compliant ships.

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MR. SHIPKOFF said based on today's markets, 100% of North Slope liquefied gas would go contractually to East Asian markets because the price was the most attractive. He added it was possible some portion of that gas could be delivered to the West Coast via the Costa Azul terminal because of swapping.

SENATOR THOMAS asked what was meant by non-conventional gas.

MR. RICHARDS said it was a DOE term.

MR. SHIPKOFF said shale gas, coal, methane, were considered non-conventional gases.

SENATOR THOMAS clarified that synthetic gasoline or gas from coal gasification type projects did not fall under the definition of non-conventional.

MR. SHIPKOFF said it was not primarily used in that context.

SENATOR THOMAS asked if the problems that prevented the PA from submitting their proposal under the AGIA timeframe had been addressed.

MR. WALKER answered yes.

SENATOR THOMAS asked if the project was the same as originally proposed with the exception of the addition of Mitsubishi as a partner.

MR. WALKER answered yes with the addition of Mitsubishi and Sempra.

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SENATOR WAGONER said Conoco Phillips' current contract for Nikiski LNG was tied to the cost of a barrel of oil. He asked if that was traditional with the Asian markets and what the long term contracts with them might be.

MR. SHIPKOFF said the short answer was yes the Asian market prices for LNG were directly tied contractually to oil prices.

CHAIR HUGGINS announced the arrival of Senator Green.

[2:04:49 PM](#)

CHAIR HUGGINS called a brief recess.

[2:20:48 PM](#)

CHAIR HUGGINS called the meeting back to order.

[2:20:58 PM](#)

MR. WALKER recalled the battle for statehood when Alaska was granted 303 million acres from the federal government and told to take care of itself, with the restriction that mineral rights to the land could not be sold. He said that was what they were trying to do with natural gas.

CHAIR HUGGINS said he agreed with Mr. Walker's interpretation.

[2:23:47 PM](#)

MR. SHIPKOFF continued with the presentation addressing economics of the LNG projects. He said the PA believed the LNG project provided the most attractive option from an economic standpoint to monetize North Slope gas. The administration, he said, reached the opposite conclusion, that a pipeline to Canada was the most attractive option.

CHAIR HUGGINS reminded committee members that a "commitment to evaluate LNG project options as part of the AGIA evaluation process" came up in January. He said LNG was a feasible project concept and many Alaskans supported it.

SENATOR WIELECHOWSKI asked if the PA had any reason to doubt TransCanada's commitment to build an Alaska gas line if the demand existed.

MR. WALKER said there was very little in the application that supported that pledge. Though he appreciated the statements made

by Mr. Palmer he was uneasy with the level of commitment and AGIA process.

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MR. SHIPKOFF said the committee had received an analysis from Econ One Research, Inc., which showed a range of different results under a range of different assumptions. He wanted to discuss factors which caused the analysis to differ and what was behind the discrepancies in the different conclusions. Referring to page 13 of the report Mr. Shipkoff said assumptions were key in drawing any conclusions from an economic analysis and determined the outcome.

MR. SHIPKOFF said netback pricing was a function of the price achievable in the target market, and the cost of transporting the gas from its production point to that market. He said if different assumptions were used for pricing and for the cost of getting the gas to the market, clearly different conclusions would be reached as to the relative attractiveness of two separate monetization options.

MR. SHIPKOFF said the principle elements that determined the cost of transporting the gas to the markets were capital costs of the project economics. He said they had different assumptions about what prices would be achieved between the two options; the Asian LNG market in the PA case and the Alberta gas markets in the pipeline case.

MR. SHIPKOFF reviewed the proposed PA project shown on page 14 of the report. Their project proposed a delivery of 2.7 bcf to the LNG plant in Valdez not 4.3 bcf which was provided in another analysis. He did not believe 4.3 bcf was a viable initial option, but it might be possible for future expansion.

MR. SHIPKOFF said page 15 of their report showed a comparison of assumptions used by the PA and the administration. He said the discrepancy between capital costs was the key factor causing different results.

[2:32:25 PM](#)

CHAIR HUGGINS asked if the PA and the administration discussed their differences during the AGIA process.

MR WALKER answered no. He said the PA proposed that Mr. Shipkoff and the Bechtel analysis be included in the process but they were not allowed to do so. He added the PA requested a copy of the model used by the administration but it was not provided.

CHAIR HUGGINS clarified that the PA did not get a copy of the administration's model when it was requested.

MR. WALKER answered no they did not.

MR. SHIPKOFF added that in his experience whenever there were significant disagreements the best way to make sure all parties were on the same page was to have the engineers on both sides talk to each other. He said it was unfortunate it did not happen in this case.

MR. SHIPKOFF continued to page 16 of the report, addressing the difference in methodologies employed to estimate the costs of the LNG plant used in the PA analysis and the administration's analysis. He said the Bechtel estimate was developed as a bottom up estimate, and was updated in 2007 after three months of extensive review from nearly ten years of previous work.

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SENATOR THOMAS referring to page 14 of the report, asked if they assumed the gas conditioning plant (GCP) would be built by others which was why it was not included in the costs on page 15.

MR. SHIPKOFF said that was correct.

SENATOR THOMAS asked if the estimate was about \$5 billion dollars.

MR. SHIPKOFF said he believed the Bechtel estimate for the GCP was around \$3.5 billion. However, he said, when they compared netback results for the two projects the PC assumed the administration's cost estimate for the GCP because it was higher.

SENATOR THOMAS said some people believed a conditioning plant may not necessarily be needed and existing facilities at Prudhoe may be capable of being hooked up to a line without as much conditioning taking place.

MR. SHIPKOFF said CO2 would definitely need to be extracted on the North Slope. He said he did not know the technical capability of existing facilities and it was something the engineers would need to address. He said there will be a discussion about how to optimize the technical design in a way that maximizes any synergies that might exist from existing

infrastructure, but in the absence of such information a conservative assumption was made that no existing infrastructure would be used. In reality, he said, there would be ways to integrate the project with existing infrastructure.

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CHAIR HUGGINS clarified that a GCP was not included in either proposal.

MR. SHIPKOFF said that was correct. His understanding was TC also assumed a conditioning plant would be outside the scope of their proposal.

CHAIR HUGGINS said TC claimed they would build a plant if no one else agreed to.

[2:38:27 PM](#)

SENATOR WAGONER said he did not know of any project where companies were not responsible for sending pipeline ready gas. He said if producers were going to sell their gas it had to be treated before they delivered it to the pipeline.

CHAIR HUGGINS said there were some people that might disagree.

SENATOR WAGONER said the industry standard was to deliver gas with the CO2 and impurities removed. He thought it was a waste of time to continue to discuss gas treatment plants.

[2:39:52 PM](#)

MR. SHIPKOFF continued with the information presented on page 16 of the report. He said his understanding was the administration took a "top down" approach to develop LNG plant capital cost estimates and used data from LNG projects from around the world. He said this approach had limitations because cross project comparisons can be very difficult. He pointed out LNG plants were not all the same (page 17) and there were many differences associated with the location, the scope, the feed gas composition, and other unique project specific factors that had to be taken into account.

MR. SHIPKOFF, referring to page 18 of the report, said feed gas pressure was a unique feature of this project. He said Bechtel engineers believe savings of 30% of the cost of the LNG plant could occur from such high pressure feed gas. He added ambient conditions and location specific factors play a significant role in the project.

MR. SHIKOFF said even if location and project specific factors were taken into account there still would be significant variation from project to project. He said another factor affecting capital costs was there were not enough qualified engineering firms to do all the work being requested.

MR. SHIPKOFF was not suggesting the approach used by the administration's technical consultants was incorrect, but the limitations should be recognized. He said mixing two different methodologies when analyzing the pipeline and LNG project introduced an element of inconsistency into the comparison and therefore compromised its validity.

CHAIR HUGGINS asked Mr. Shipkoff what his confidence level was in the administration's analysis.

MR. SHIPKOFF said he did not know because he had not seen the underlying database used to derive a capital cost estimate. He said he was sure the administration's consultants were highly qualified people, but they had limitations imposed on them.

CHAIR HUGGINS asked if they were given the limitation to exclude a "bottom up" approach.

MR. SHIPKOFF said the limitation arose from the decision to exclude the PA's application and therefore none of the PA materials were used in their analysis.

[2:47:07 PM](#)

SENATOR WAGONER asked what the capital cost assumption was in the PA application.

MR. SHIPKOFF referred back to page 15, and said the total without escalation costs such as insurance, project and development, etc., was \$8 billion. He said the total with escalation depended on the timing of the project, and for purposes of the analysis they assumed a 4% cost escalation to be consistent with the administration's assumption.

SENATOR WAGONER asked if the \$2 dollar plus tariff to get the gas from the North Slope to the plant put them at a disadvantage in the marketplace.

MR. SHIPKOFF said it would be very unusual for all projects to have the same market delivery costs. He said the question was could a project deliver its product to the market below the price which it could attract in that market.

[2:50:24 PM](#)

SENATOR WIELECHOWSKI asked what Mr. Shipkoff expected the LNG tariff to be.

MR. SHIPKOFF estimated about \$5.10 but wanted to answer the question accurately rather than off the top of his head.

[2:51:37 PM](#)

SENATOR WIELECHOWSKI said that was a huge discrepancy from the administration's estimate. He asked what accounted for the discrepancy.

MR. SHIPKOFF said the key element was the LNG plant. He added that you had to be careful when comparing numbers because you may be talking about the same cost but in different terms. He said it was important to compare the same things. He said he was reassured about the validity of their analysis when it was compared to the information presented by Econ One.

[2:53:57 PM](#)

CHAIR HUGGINS said he thought Alaskans were very supportive of the PA concept.

MR. SHIPKOFF continued on to page 20 of the report, addressing prices in the Asian and North American LNG markets. He said Asian market prices were typically set on a bilateral basis under long term sales and purchase agreements which could run twenty to twenty-five years and pricing provisions for each contract reflected the market supply and demand dynamics at the time of the contracts' execution. He explained contracts were executed at different points in time so there was no single price of LNG but a weighted average of all the market prices for various contracts. He said this contrasted with the North American market where price discovery was transparent and driven by a spot market at regional trading hubs such as Henry Hub or ACO.

MR. SHIPKOFF said page 21 of the report, a graph previously presented by Gas Strategies, was very useful. He said since 2004 there had been a very steep increase in the prices LNG projects were able to negotiate with Asian buyers because of a perceived shortage. In other words, he said, on a btu basis, gas was more expensive than oil which was not the case historically.

CHAIR HUGGINS asked for clarification that on a btu basis gas was more expensive than oil.

MR. SHIPKOFF said under a recent purchase agreement, for prices below \$100 dollars, the formula resulted in a price per mbtu which was higher than the oil price in btu terms, so gas was above parity with oil.

CHAIR HUGGINS said some economic theorists believed oil prices had peaked for 2008. He asked where Mr. Shipkoff would see gas going if oil went down to \$100 dollars.

MR. SHIPKOFF asked if he was referring to U.S. prices.

CHAIR HUGGINS said to assume Henry Hub.

MR. SHIPKOFF said in the U.S. market there was not a direct link between oil and gas prices and they generally moved together because some of their uses could be substituted. He said recently observed oil to gas price ratios in the North American market had been substantially higher than in the past.

CHAIR HUGGINS asked what the model would be for the Pacific Rim.

MR. SHIPKOFF said there the linkage was direct, contractual, and formulaic. He said a contract negotiated a long time ago when the market was more buyer friendly yielded a lower price, but at \$100 dollar oil, the price was around \$17 dollars per mbtu.

[3:01:24 PM](#)

SENATOR THOMAS asked if contracts change based on price fluctuations.

MR. SHIPKOFF said typically LNG sales and purchase agreements did not adjust daily, but frequently on a three month trailing average basis. He said as oil prices moved, there was a direct correlation with the contractual sales price.

[3:02:16 PM](#)

SENATOR ELTON asked what the length of a "long term" contract was.

MR. SHIPKOFF said contracts tended to be twenty to twenty-five years. He said there had been speculation in the market that contract terms would be reduced to shorter than twenty years, but in the current environment he found it difficult to see how any buyer would be able to negotiate anything less than twenty years.

SENATOR ELTON asked if there were provisions for re-openers on the part of either party.

MR. SHIPKOFF answered yes; typically there were price re-opener provisions which could be formulated differently on different contracts. He said sometimes there were bands of pricing for oil which was what the parties at the time felt was the reasonable expectation for long term prices. Formula changes occurred that benefitted the buyer or the seller depending on which way the price fluctuated. Another scenario was a re-opener could be triggered contractually if a certain band was exceeded, forcing the parties to negotiate an alternative arrangement.

SENATOR ELTON asked if his assumption was correct that a lot of bands had been broken in contracts that had been signed prior to January 2008.

MR. SHIPKOFF answered yes; many old contracts had exceeded their bands a long time ago.

SENATOR ELTON asked if buyers or sellers had walked away from previous Asian contracts.

MR. SHIPKOFF said if the two parties could not agree they were both in trouble. He said in the case of a dispute the contract still prevailed. This was a difficult question to answer, he said, because it depended on the situation and perceptions of the buyer and seller in question.

[3:06:48 PM](#)

SENATOR THOMAS referring to the graph on page 21 of the report, asked if the differences from early 2005 to the end of 2006 were due to changes in theory and how the contracts were written.

MR. SHIPKOFF said the pink line representing China was instructive. He said British Petroleum (BP) contracted with China to supply LNG to what was expected to be a huge growth market. The growth did not materialize because, he said, the Chinese were very price sensitive, had a lot of coal and did not like to burn expensive gas if cheap coal was available. He added the Chinese contract was largely perceived as an attempt to gain entry into the Chinese market.

MR. SHIPKOFF continued to page 22 of the report and said the current perception was the market was very highly favorable to suppliers and sellers. He said the PA did not believe the

favorable sellers market would continue. He added the Gas Strategies report on LNG pricing was a good one.

CHAIR HUGGINS said time was up for the day and asked if the presenters could return the next day.

MR. WALKER and Mr. Shipkoff said they would see if it was possible.

SB 3001 was held over.

CHAIR HUGGINS adjourned the meeting [3:11:01 PM](#).