

**ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE**

August 17, 2011

9:01 a.m.

MEMBERS PRESENT

Senator Joe Paskvan, Co-Chair
Senator Thomas Wagoner, Co-Chair
Senator Bert Stedman
Senator Gary Stevens
Senator Hollis French

MEMBERS ABSENT

Senator Lesil McGuire
Senator Bill Wielechowski, Vice-Chair

OTHER LEGISLATORS PRESENT

Senator Fred Dyson
Representative Hawker
Representative Les Gara
Representative Chris Tuck - online
Representative David Guttenberg - online

COMMITTEE CALENDAR

Presentation: Federal Pipeline Coordinator's Office

- HEARD

Presentation: Alaska Gasline Port Authority

- HEARD

Presentation: Dynamic Capital Management, Inc.

- HEARD

Presentation: Alaska Natural Gas Development Authority

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record.

WITNESS REGISTER

LARRY PERSILY, Federal Coordinator
Alaska Natural Gas Transportation Projects
Washington D.C.

POSITION STATEMENT: Discussed the permitting process for the gas pipeline to the Lower 48, the fieldwork that is underway, financing, AGIA, markets in the Lower 48 and markets in Asia for LNG.

BILL WALKER, Manager and General Attorney
Alaska Gasline Port Authority
Anchorage, AK

POSITION STATEMENT: Offered AGPA perspective regarding an Alaska gas pipeline project.

DAVID GOTTSTEIN, President
Dynamic Capital Management, Inc.
Anchorage, AK

POSITION STATEMENT: Offered suggestions regarding an Alaska gas pipeline project.

Harold Heinze, Chief Executive Officer
Alaska Natural Gas Development Authority
Anchorage, AK

POSITION STATEMENT: Presented the ANGDA perspective on the gas pipeline.

MARY ANN PEASE, owner
MAP Consulting, LLC.
Anchorage, AK

POSITION STATEMENT: Discussed LNG conversion to propane and transport as it related to the gas pipeline.

MALCOLM ROBERTS, representing himself
Anchorage, AK

POSITION STATEMENT: Offered his views on "owner state" concept as it related to the gas pipeline.

DOUGLAS GIBSON, representing himself
Eagle River, AK

POSITION STATEMENT: Offered his views on energy and the gas pipeline.

JOE GRIFFITH, General Manager
Matanuska Electric Association and

President

ARCTEC -The Railbelt G & T

POSITION STATEMENT: Discussed MEA's critical need for a reasonably priced natural gas supply.

ROGER PEARSON, representing himself
Kenai, AK

POSITION STATEMENT:

BILL WARREN, representing himself
Nikiski, AK

POSITION STATEMENT:

GEORGE PIERCE, representing himself
Kasilof, AK

POSITION STATEMENT:

LYNN WILLIS, representing himself
Eagle River, AK

POSITION STATEMENT:

KAYE LAUGHLIN
Laughlin Co.
Eagle River, AK

POSITION STATEMENT:

TONY IZZO, representing himself
Anchorage, AK

POSITION STATEMENT:

JERRY MCCUTCHEON, representing himself
Anchorage, AK

POSITION STATEMENT: Testified as to the realities of a gas pipeline.

PAUL KENDALL, representing himself
Anchorage, AK

POSITION STATEMENT:

ACTION NARRATIVE

[9:01:42 AM](#)

CO-CHAIR JOE PASKVAN called the Senate Resources Standing Committee meeting to order at 9:01 a.m. Present at the call to order were Senators Stevens, French, Stedman, Co-Chair Wagoner, and Paskvan.

PRESENTATION: Office of the FEDERAL PIPELINE COORDINATOR

CO-CHAIR PASKVAN announced the business before the committee was to hear a presentation from Larry Persily.

[9:02:26 AM](#)

LARRY PERSILY, Federal Coordinator for Alaska Natural Gas Transportation Projects, said he would discuss: the permitting process for the gas pipeline to the Lower 48, fieldwork that was underway, financing AGIA and markets in the Lower 48 and Asia for LNG.

He explained that the 2004 law that created the Office of the Federal Coordinator (OFC) gave it unique authority. If a federal agency imposes a permit condition that goes beyond what is required by law, and if it impairs the expeditious construction of the project, the OFC has the authority to overrule the permit condition. He related that the OFC was currently drafting permit review policies that would probably be ready for comment in the fall. Part of this process will be to define "expeditious construction" since the enabling legislation did not do so. In addition, a new web-based permit matrix will make it easier to locate, for any federal permit that is required on this project, the statutory site, the regulatory site, information on scheduling and the data requirements. It will also be possible to track the permit on a timeline. He noted that in an effort to keep the public informed, the OFC two days ago issued a Guide to Alaska Gas Projects.

MR. PERSILY reminded the committee that the federal loan guarantee - which provides the accelerated depreciation for the pipe, the investment tax credit for the gas treatment plant and the authority of his office, was available only for a pipeline that moves gas to the Lower 48. Those provisions of law do not apply to an exclusive export project or an exclusive in-state Alaska project. In 2004 the loan guarantee was set at \$18 billion plus an inflation index that brings it to about \$21 billion today. He noted that there was a proposal before Congress to increase the federal loan guarantee to \$30 billion plus an inflation index, but that the current political climate made action unlikely anytime soon.

MR. PERSILY displayed a map depicting the current major Canada-U.S. gas pipelines and emphasized that the proposed pipeline through Canada didn't have anything to do with Canada getting Alaska's gas. Canada has an existing and well-developed gas

export pipeline system that has spare capacity now and in the future. He emphasized that if Alaska can get its gas to northern Alberta and connect into that existing network, it will be possible to move it anywhere in North America.

[9:07:09 AM](#)

SENATOR STEDMAN asked if he could briefly discuss the treaty between the U.S. and Canada related to gas import and export.

MR. PERSILY explained that the treaty for this project was signed in 1977, and there was also the North American Free Trade Act (NAFTA). These existing laws will allow the gas to move freely from Alaska through Canada to the Lower 48. The approvals that are required under NAFTA to send gas overseas are issued in a matter of days as opposed to months for an export license through the Department of Energy.

SENATOR STEDMAN asked if the original treaty for this project provided for a free flow of gas back and forth across the border that, in the end, was supposed to be a net zero loss or gain for both countries.

MR. PERSILY said there was a provision that talked about some payback if Canada ran short of gas, but Canada was not short of gas, and the issue had not come up.

[9:08:49 AM](#)

MR. PERSILY displayed a timeline for the Alaska Pipeline Project and explained that the Federal Energy Regulatory Commission (FERC) will do the environmental impact statement (EIS) for the project and make a determination on the Certificate of Public Convenience and Necessity (CPNC). FERC started the EIS process on August 1, 2011 when it issued a notice of intent, and made it clear it was working on the Alberta option through Canada. While there had been no definitive statement that the Valdez option was off the table, this EIS will be looking at the Alberta option to the Lower 48.

The project applicant in December will turn in 11 grant resource reports dealing with all the baseline data for the EIS regarding soils, water, hydrology, subsistence and socioeconomic factors. FERC will start its public scoping sessions throughout Alaska in January 2012. This year the TransCanada, ExxonMobil partnership will spend a little more than \$200 million on fieldwork. An estimated \$160 million will be reimbursed by the state under AGIA, and \$50 million will come from the companies. He display a graph depicting the proposed TransCanada, ExxonMobil spending

and the state reimbursements through FY14 when the state's \$500 million is expected to run out. Expenditures on fieldwork in FY12 are the heaviest to date, and by the end of the fiscal year the state will have reimbursed or encumbered about \$300 million. He noted that this engineering, design, and permitting work was going on concurrent with the commercial negotiations with potential shippers.

Returning to the timeline, Mr. Persily said federal and state agencies have six weeks to review the resource reports and final field work could be done in 2012. TransCanada, ExxonMobil are scheduled to turn in the FERC application in October 2012. FERC has 12 months to complete the draft EIS, an additional 6 months for the final EIS and 2 months to make a decision on the CPNC. Project sanction was estimated in 2015, construction starting in 2016 and first gas in 2020.

MR. PERSILY submitted that the engineering, design and environmental work on this project were known quantities and therefore relatively easy, whereas the politics and market economics were more problematic. He said it's his opinion that AGIA would never get to a pipeline by itself. It was simply a path toward getting a building permit for a pipeline. AGIA doesn't deal with fiscal terms, markets or financing. He drew an analogy to a bare lot. Before it's possible to build a home on that lot it's necessary to get a building permit, water and sewer connections, zoning approval and financing. AGIA was the method the state chose to get the building permit; it was an initial step and more was needed to get a project. To get financing the shippers have to be willing to take the risk that they'll find enough new gas supply from the North Slope to keep the pipe full to honor the long-term contracts they signed. It was the shippers that would take the risk on market prices and cost overruns on the project.

MR. PERSILY noted that the Ruby Pipeline had a 23 percent cost overrun and the Rockies Express Pipeline had a significant cost overrun. It's something that the shippers and pipeline sponsor will have to deal with. It was also important to have state fiscal terms that recognize the risks and make this project attractive in a capital-constrained world. He said the decision to build the project was a private-sector decision, but the state can help with reasonable fiscal terms. He commented that the Alaska Stranded Gas Development Act (ASGDA) wasn't a bad concept, but it wasn't handled well and scared Alaskans away from the notion of negotiating with the companies. He emphasized that if there was going to be a project, Alaskans would have to

realize that negotiating can take many forms and wasn't necessarily bad. For example, property taxes could be discussed. Under state oil and gas property tax law, property taxes start the first year. For the 4.5 billion cubic foot per day (bcf/day) project, property tax up to first production will add up to almost \$1 billion. Other fiscal terms topics could include back-end-loaded tax regime, deferrals and backstop protection on cost overruns. It wasn't necessary to use the term "subsidy."

MR. PERSILY suggested that Alaskans look at this as a 50-year project, and understand that there were a lot of opportunities to collect money over that time. If the state reduced or deferred the take on the first 10 or 20 tcf to allow a quicker capital cost recovery, it would make the project more attractive. The state could make it up and more on the next 50 or 60 tcf.

9:18:15 AM

MR. PERSILY said the in-state project - the Alaska Gasline Development Corporation - faces many of the same problems as AGIA on a smaller scale. But it was important to realize that it was not a business competitor. Playing one project against the other was not in the best interest of the state. The best solution for the next 50 years was a big pipeline that provides economies of scale, state revenues, a reason for companies to spend tens of billions of dollars to find more gas and oil on the North Slope to keep that line full and the opportunity to tie in with an in-state pipeline to serve the Interior and as far into the state as it can reach economically. Both federal and state law requires mileage-based tariffs, meaning that customers at the end of the line pay 98 percent of the gas treatment plant (GTP) and pipe. Alaskans will only pay for the portion of the pipe for the capacity and the number of miles used in the state. That was the cheapest way to get gas to Alaskans.

A gas pipeline will do more than anything else, in the near term and possibly the long term, to put more oil into the Trans Alaska Pipeline System (TAPS). Gas from Prudhoe Bay and Point Thomson will keep the 4.5 bcf/day pipe filled for 13-15 years after which there will be spare capacity. A producer that signed a 20-25 year deal with that knowledge will start looking for new discoveries right away, because the process to production can take a decade. The incentive to look for new gas to keep the line full means more oil will be found.

MR. PERSILY said the North Slope has been a very profitable oil-only play for 35 years, but it probably won't continue so companies have to be given the opportunity to market their gas especially given the current offshore development in the Beaufort and Chukchi seas. It doesn't make financial sense for the state to make it a liability for companies to handle their gas as opposed to something they can monetize. Having a gas line makes all those investments more attractive.

[9:21:46 AM](#)

MR. PERSILY displayed a slide illustrating the discrepancy between production and consumption. For example, 2010 data shows that U.S. natural gas production climbed from 60 bcf/day in January to a little more than 60 bcf/day at yearend, whereas consumption in January was closer to 100 bcf/day. He then displayed a map showing the locations of storage reservoirs across the U.S. as of August 2007. He explained that in the past couple of years, utility demand for natural gas increased several bcf/day.

Utilities are moving from coal to gas because it's cleaner, more certain and a better investment. For example, Project Energy, a utility that serves North Carolina and South Carolina, was phasing out 11 of its dirtiest coal plants by 2014; Tennessee Valley Authority was shutting down 20 of its dirtiest coal plants by 2018; and Wyoming, a huge coal state, will have its very first gas-fired power plant on line in 2014. In the first quarter of 2011, coal's share of power generation was the lowest in 30 years. He commented that Michael Bloomberg's \$50 million philanthropic donation to the Sierra Club to fight coal-fired power plants will help natural gas demand.

MR. PERSILY said coal will never die, but there was opportunity for natural gas to capture growth. Credit Suisse recently reported that almost half of the 340 gigawatt (GW) coal-fired capacity in the U.S. did not have scrubbers. To bring those plants to new emission standards would be very expensive, and a lot of utilities deem the investment not worthwhile. There was further opportunity for natural gas because one-third of U.S. coal-fired power plant capacity was more than 40 years old. If the trend away from coal continues, the U.S. will need a lot more natural gas.

He reminded the committee that the Western Canadian Sedimentary Basin was in decline just like the mature gas fields of Prudhoe Bay. In 2001, Alberta conventional gas production was 14.2 bcf/day, and was projected to be just 7.7 bcf/day in 2018. Shale

gas will make up a lot of the decline in conventional production, but the question was if in 20-40 years it would cover both the decline in production from conventional fields and the increase in demand. Clearly, if Alaska gas can be priced competitively, it should have a place in the market.

MR. PERSILY emphasized that while Alaskans have long been fixated on the price of oil, today's price of natural gas doesn't matter for this project. The question was what it will be 10-30 years from now. He noted that Reuters this spring surveyed 27 oil and gas industry analysts and the consensus was that in 2013 the price of gas would be \$5.40. Goldman Sachs predicts that gas will be \$6 by 2015. While nobody knows what it really will be, the expectation is that the worst is over as demand builds.

He said shale gas production was growing, but hydraulic fracturing and wastewater handling were driving the public debate. Noting that public policy was often made by emotions, he said that industry has been using hydraulic fracturing for decades, but never before in suburban Pennsylvania. The Department of Interior was reviewing the rules for hydraulic fracturing on public lands, the EPA was reviewing the rules and states were starting to regulate it. New York, Pennsylvania, West Virginia, Arkansas, Texas and Wyoming had already imposed new rules on hydraulic fracturing, drilling, and water disposal.

[9:27:17 AM](#)

CO-CHAIR PASKVAN recognized that Representative Les Gara had joined the meeting and Representative Chris Tuck was attending via teleconference.

MR. PERSILY said wastewater has become a contentious issue and Pennsylvania, for example, said it can no longer be run through water treatment plants. He noted that in a sign of the times, a San Francisco-based law firm set up a special 13-member team to handle the defense work on fracking cases against drilling companies. He cautioned that shale, too, will have problems and the question was if a utility will be willing to bet everything on shale for decades to come.

MR. PERSILY warned that Alaska wasn't going to get filthy rich on gas like it on oil. Although the future was bright, expectations have to match the economic reality. He noted that an anonymous reader recently posted a factually inaccurate comment on the Anchorage Daily News (ADN) website. The reader calculated that

the state could make just under \$1 billion a year from the 4.5 bcf/day gas line, and called it "chump change for Alaska."

9:30:10 AM

CO-CHAIR PASKVAN called a brief at ease from 9:30:10 a.m. to 9:30:47 a.m. to deal with phone interference.

MR. PERSILY stated that, regardless of that reader's sentiment, a deal for a 4.5 bcf/day gas line that puts \$1 billion net in the state treasury every year in addition to creating jobs, bringing affordable gas to Alaskans for decades, and providing the necessity for tens of billions of dollars in new oil and gas investment was worth signing. He suggested that Alaskans need to look at the overall benefit when evaluating the project.

SENATOR STEDMAN pointed out that Alaska was different than other states because it owns the natural resource. He continued that he rather expects the legislature to look at a sliding scale with some sort of progressivity because natural gas at \$5 has virtually no monetary value to the state treasury. It would be a different ballgame if gas was priced at \$10-15.

MR. PERSILY agreed that progressivity or some sliding scale made sense, and that it also made sense to sign a deal even in the current low price environment.

MR. PERSILY directed attention to a bar graph and said it was important to look at the size of the market when considering LNG. He explained that on an average day in 2010, North America consumed nearly 82 bcf/day of gas, [66 bcf/day] of which was consumed in the U.S. During that same timeframe, China consumed 10.54 bcf/day, Japan 9.14 bcf/day, India 6 bcf/day, South Korea 4.15 bcf/day and Taiwan 1.36 bcf/day. Prices are higher in Asia because Japan long ago linked LNG to the price of oil to ensure a steady supply. But with oil at \$110 in the world market, customers are eager to break that link. China, in particular, doesn't like paying oil-linked prices for LNG, and several years ago signed a big contract for \$4 LNG from the Tangguh Project in Indonesia. South Korea about a year ago paid about \$11 per mcf for its gas. He said LNG prices in Asia are volatile and just because the spot prices in Asia are a little higher than \$14 per mcf (1,000 cubic feet) or 1 million Btus today, doesn't mean they will be \$14 tomorrow.

Also, production costs are significantly higher for LNG. The Wood Mackenzie report for the AGPA estimated \$4.40 per mcf for liquefaction and gas loss during the process. That amount gets

added to the pipeline and gas treatment plant tariffs. For a Valdez liquefaction plant that would produce 2.7 bcf/day, Wood Mackenzie estimated that the capital costs would be about \$24 billion. Adding that to the pipeline and gas treatment plant pushes the project to \$45-50 billion.

MR. PERSILY said it's important to remember that a 20-year binding shipping commitment on a 4.5 bcf/day line to Alberta from the North Slope, based on the open season numbers, would be worth about \$115 billion. A 20-year binding shipping commitment on a 2.7 bcf/day line to Valdez, with liquefaction, would total nearly \$170 billion. The smaller line would also need a shipping commitment, but the line would cost more and require more financing.

With respect to the fiscal system, the Wood Mackenzie report calculated that the net present value to the state through 2050 for the LNG project would be \$124 billion, and the net present value to the producers would be \$24 billion. He questioned whether a fiscal system that returns five times as much to the state while the producers take all the risk would really attract investment to build the project.

[9:38:09 AM](#)

SENATOR FRENCH asked what the net present values would be to the state and producers for an overland route to Alberta.

MR. PERSILY replied he would follow up and supply the numbers.

SENATOR STEDMAN suggested the committee look more closely at the Wood Mackenzie numbers to see how they're calculated and at what price, because he was a little suspect of them.

MR. PERSILY agreed and added that gets to the issue of decoupling and the treatment of oil and gas.

REPRESENTATIVE GARA reminded the committee that when Senator Stedman several years ago introduced legislation to tax gas at the same 25 percent rate as oil, the administration rewrote the regulations that defined what portion of the oil tax was a gas tax. He asked if those regulations had any effect on producers being willing to put gas in the pipe.

MR. PERSILY responded he wasn't familiar with the administration's regulations, but the point was that gas is not as profitable as oil. In the current price environment, less than 10 percent of the value of a barrel of oil goes to

transportation costs but, if the open season numbers are correct, three-fourths of the value of gas will go to transportation costs. Because of cost overruns and other issues, what to do with gas has to be addressed on a larger scale than just regulations.

[9:40:53 AM](#)

He displayed a graph depicting the average daily Asian LNG imports for 2010 and noted that combined imports for Japan, South Korea, Taiwan, China and India add up to about one-fifth of the North American market. Although it wouldn't be impossible to sell into the Asian market, this illustrates that it is much smaller market. Responding to a question from Senator French, he explained that the average daily consumption for North America and the U.S. were included at the top of the Asia LNG import graph to give some perspective.

A line graph showing China production and consumption rates between 2000 and 2010 illustrates that LNG imports increased in just the last few years. Then imports doubled from July 2010 to July 2011, with most of the gas coming via the new \$22 billion, 3 bcf/day pipeline from Turkmenistan. China also has shale gas - conceivably as much as the U.S. - and the U.S. government has agreed to help develop it. Because China has options, it will buy what's cheapest to meet increasing demand.

[9:43:26 AM](#)

CO-CHAIR PASKVAN recognized that Representative Max Guttenberg had joined the committee via teleconference.

MR. PERSILY noted that Japan was currently buying about 1 bcf/day of LNG because most of its nuclear capacity was shut in, but last month electrical demand was down more than 8 percent from one year ago. While Japan was buying more LNG, people were using less so it wasn't all translating into direct LNG sales.

He explained that in 2008, total global LNG export capacity was 27.5 bcf/day. Since then about 18 bcf of new capacity was operating, under construction or committed, and more projects were on track for final investment decisions this year. He emphasized that to make the economics look at all attractive for an Alaska LNG line, it was important to get to full capacity as soon as possible.

[9:46:41 AM](#)

In conclusion, Mr. Persily stated that Alaskans need to realize how much the state needs a gas line and that it will take a

long-term stable fiscal deal with the producers to get them to put up the money to build it. It's a tough but not impossible environment, he stated.

CO-CHAIR PASKVAN asked if he had any comments on the presentations that Mr. Palmer and Mr. Fauske delivered earlier in the week.

MR. PERSILY responded that the Alaska Gasline Development Corporation, which Dan Fauske heads, has done a good job presenting information on an in-state line. However, he would suggest that it's time to stop thinking of an in-state versus a big line and instead consider how to put them together. The big line doesn't get gas to Fairbanks or Southcentral and the economics aren't attractive for the in-state line. If the state is willing to commit billions of dollars for .5 bcf/day, why not sit down with the producers to see if that money could be leveraged to get both lines. That would result in public revenues and the cheapest gas because of the mileage-based tariffs and economies of scale for a big line.

MR. PERSILY opined that Mr. Palmer was in a tough position. Companies that bid for gas capacity require that the information they submit be held confidential. The state will get information after the agreements are signed and the FERC process begins, and the question is whether to wait for the agreements before starting to talk fiscal terms or to engage the companies in fiscal term talks now. Because the state is more anxious to know its future than the companies, it is more incumbent on the state to push the schedule along and start fiscal talks. This should include educating Alaskans as to the issues. Those discussions need to start now.

9:51:00 AM

SENATOR STEVENS asked how much fear he has that TAPS is on the way out.

MR. PERSILY replied he didn't have much fear of that in his lifetime. TAPS is currently moving a little more than 600 barrels/day, and the Alyeska flow through report for this year said that with mitigation it could deal with flow rates as low as 350,000 bbl/day. There is a cost attached to low flow rates, but the mitigation is affordable when Alaska North Slope oil is selling at more than \$100 a barrel. It's a lot less than the 2 million barrels per day in 1988, but 350,000 bbl/day is still a lot of oil and at \$100 a barrel it's worth finding a way to keep it going. However, TAPS does need more production and the best

way to do that is to turn Alaska into both an oil and gas province.

[9:53:04 AM](#)

REPRESENTATIVE HAWKER recalled that about a year ago Mr. Persily expressed concern about the merchantability of the project if TransCanada didn't have the open season results within a year of the announcement, and yesterday Mr. Palmer acknowledged that TransCanada was behind its own timeline in moving the demonstration of economic viability forward. He asked how legislators should incorporate his counsel about considering a certain timeframe and if they should embark on a feedback loop to reevaluate decisions up to this point and figure out the best route forward.

MR. PERSILY replied the context of his comment last December that "it would be bad not to have something a year from now" wasn't that it would be bad for the project, but that it would be bad for public opinion. Unfortunately, public opinion in Alaska already is tending toward the notion that it won't happen. That's worrisome because it makes it more likely that the public will turn to other less-attractive options. What some people don't appreciate is that it is not TransCanada's responsibility to make the project financially viable or to negotiate with the producers. Through AGIA, TransCanada can lay out the process but nothing he's seen so far indicates they won't end up with the FERC certificate. To get value from it is in the state's lap.

[9:58:21 AM](#)

REPRESENTATIVE HAWKER summarized that the state doesn't have a viable project today and probably won't until it sits down and negotiates with the producers. He asked if the fiscal regime was the single greatest point of negotiation, and what the legislature can do next session to give TransCanada the opportunity to develop a viable economic project.

MR. PERSILY countered that he believes the project is very viable, but there were two hurtles to overcome: fiscal terms and the market. The state can't do much about gas markets, but it can affect fiscal terms. To get someone to sign \$115 billion of shipping commitments and write the checks for construction there, has to be a fiscal deal between the state and the producers.

[10:00:11 AM](#)

CO-CHAIR PASKVAN asked if he would comment on the anticipated settlement of the Pt. Thomson unit and what it potentially means for long-term gas purchase agreements.

MR. PERSILY replied it was his understanding that it would be too risky for a company to sign a 20-25 year shipping contract if Pt. Thomson wasn't added to the mix. It ensures 13-15 years of full capacity and that provides time for additional exploration. To have a big line it's essential to have the additional reserves from Pt. Thomson that can be committed, he stated.

CO-CHAIR WAGONER recalled that when AGIA was put out there was a lot of pushback on the "must haves" that were listed. He asked if that list was an additional hurdle or if the issue went away when TransCanada signed the contract.

MR. PERSILY opined that some of the issues in the AGIA statutes would likely be back on the table when the state sits down with the producers. He highlighted that rolled in tariffs for expansion were still of concern to producers.

CO-CHAIR WAGONER asked his opinion on booking reserves, when that can be done and if there has to be a pipeline so that the reserves are no longer stranded.

MR. PERSILY replied the Securities and Exchange Commission (SEC) talks about reasonable expectation of production and it would be hard to argue that there was a reasonable expectation without a contract or plans for a pipeline. The SEC recently subpoenaed two small natural gas producers regarding their claims of shale gas reserves and production so the issue is garnering more SEC attention because booking more reserves increases stock prices. He offered to follow up with more information from the SEC.

[10:04:14 AM](#)

SENATOR FRENCH asked if anything about the AGIA framework needed to be redone in order to get the project built.

MR. PERSILY responded two provisions come to mind. One is the statute that says if a company commits gas in the first open season the state will give it the production tax rate that was in then. The other is the notion of rolled in tariffs.

SENATOR FRENCH asked him to highlight the pros and cons of 1) the all-Alaska line to Valdez and 2) the hub to Fairbanks.

MR. PERSILY said both projects face the need for fiscal terms with the producers - companies willing to sign long-term shipping contracts. What they don't have in common is the market they're going for. It's cheaper to get gas to the Lower 48 and that market is larger than Asian LNG. Among other issues, exporting to non-free trade nations like China, Japan and India will require a Department of Energy license, which may or may not be a problem.

SENATOR FRENCH noted the persistent disagreement between the two parties as to whether there was currently a valid export license, and asked what it would take to get one if, in fact, there wasn't one.

MR. PERSILY explained that Yukon Pacific had a FERC certificate for a liquefaction plant at Valdez that was rescinded last year; state right-of-way permits that were taken back a couple of years ago; and earlier this year the company notified the Bureau of Land Management that it was going to relinquish its federal right-of-way permit for the Valdez route. Yukon Pacific still has a valid Department of Energy (DOE) export license from Valdez that has never been used. The question is if that license is transferrable and if the DOE would honor it. He said DOE hasn't been asked for an official opinion, but he wouldn't bet on it.

SENATOR FRENCH asked if that project would need licenses from both FERC and DOE.

MR. PERSILY explained that the FERC certificate would be needed for the construction and operation of the liquefaction plant and a Department of Energy license was needed to export gas. He restated his belief that it wouldn't be easy to transfer the Yukon Pacific license to another company, because too much had changed in two decades.

10:08:26 AM

SENATOR DYSON asked what affect Shell's exploration in the Beaufort and Chukchi seas might have on the Alaska Highway pipeline.

MR. PERSILY replied any new gas supply will help to make either project much more attractive.

SENATOR DYSON asked him to expand on what Shell's prospects might do to the economics of Alaska and the nation.

MR. PERSILY said he wasn't familiar with Shell's production estimates, but to keep in mind that no company would want to withdraw gas the first year if in doing so they lose the chance to recover a lot of valuable oil.

SENATOR DYSON noted the escalator clause in ACES and asked if he was familiar with any royalty regimes that had something similar.

MR. PERSILY responded that everyone uses a different regime; there was no standard worldwide. Alaska uses production tax, royalty, and property tax, and Alberta uses just royalty. To encourage more investment, that province reduces the royalty in the early years and then ramps it up in later years. He continued that he believes that in Alaska the term "fiscal certainty" has become as toxic as "negotiations" and "Stranded Gas Act." The producers are realistic and realize that there is no such thing as "fiscal certainty," but they do need reasonable fiscal terms. Short a constitutional amendment, it's difficult to lock in "fiscal certainties."

SENATOR DYSON asked if royalties didn't fall under contract law.

MR. PERSILY agreed that royalty is a contract as opposed to a tax rate that's set by statute. He added that that would probably be one place to look.

[10:13:23 AM](#)

SENATOR STEDMAN commented that, contrary to media implication, Exxon was not an AGIA signatory.

MR. PERSILY agreed; the AGIA license was only with TransCanada. Exxon was not a signatory, but it did join TransCanada to work on the Alaska Pipeline Project venture.

REPRESENTATIVE GARA stated his belief that the big pipeline was clearly the best project for the next generation of Alaskans, and that he was committed to making it work. It will generate revenue, produce cheaper gas for people who are able to access it in-state, and encourage more exploration for both oil and gas. To that end, he questioned whether it was time to consider partial state ownership in order to reduce the tariff some and make the economics more attractive.

MR. PERSILY agreed that a big line would be more beneficial to the state, but that the only way to get gas for Alaskans from a big line was to work with some other entity to get a smaller in-

state distribution line built. Neither TransCanada nor the major producers were in the gas distribution business and none of them were looking at a smaller in-state line to Fairbanks and Southcentral.

Responding to the question, he said partial state ownership was one way to reduce the tariff, and it might increase the attractiveness of the project, but there were probably better ways to do it. Using production tax and royalty would avoid the risk of being an owner and the conflict of simultaneously being a regulator and owner.

REPRESENTATIVE GARA observed that the state and the oil companies each have a nuclear option. The oil companies can say they won't put gas in the pipeline unless they get the lowest tax rate possible, and the state can use the duty-to-produce argument and potentially cancel leases. He asked about the likelihood of the state and oil companies using these options.

MR. PERSILY said he rejects both nuclear options because neither will get a pipeline for Alaskans for the future. Going to court and betting the state's future on the untested legal theory of duty-to-produce when they really are producing hydrocarbons from leases was not a smart option.

REPRESENTATIVE GARA mentioned the concern about running out of gas in Cook Inlet and asked when it might be time to pull the plug on the big line and ensure the supply of in-state gas by looking at other, albeit more expensive, options.

MR. PERSILY responded he had no idea how much gas will come out of Cook Inlet any more than what the Henry Hub price of gas will be in one or ten years, but Cook Inlet shouldn't drive the decision on the big line. It was the wrong factor to consider because no pipeline can get gas into Southcentral before the end of the decade. With respect to the statement that the producers want the lowest tax rate possible, he warned that if the state is able to come up with fiscal terms that work, it will be much more complex than just changing the tax rate. Capital cost recovery, reducing risk in the early years and dealing with price uncertainty will all factor in as opposed to just a debate on a PPT/ACES tax rate.

[10:21:49 AM](#)

REPRESENTATIVE HAWKER highlighted that AGIA was a standalone free-market project while the Alaska Gasline Development Corporation (AGDC) project was more on the order of a public

utility investment in infrastructure that has a shorter timeline. He asked how and in what manner the two projects could be brought together.

[10:26:48 AM](#)

MR. PERSILY responded that they've got to be designed, built, coordinated and planned together so they come on at the same time. If there is going to be a big line, there has to be a way to get gas to Alaskans. That will be an in-state project and will take some financial participation from the state because of the small demand. In 1977 when Congress passed the Alaska Natural Gas Transportation Act, there was a federal prohibition against producer equity investment in the Alaska Gas Pipeline, but that law was later changed to allow the producers to take an equity stake in the pipeline. As to whether the project was viable or stranded, he said that any project of this size will have to have some government participation, because there was just too much risk otherwise. He restated the importance of making a good-faith effort to do the two projects together.

[10:30:20 AM](#)

SENATOR DYSON noted the concern in North America about the major players controlling pipelines and that it seems that FERC favored independent ownership. He asked Mr. Persily if he meant to infer that allowing the major producers to own and operate the pipe would make the project more attractive and therefore improve its chances.

MR. PERSILY answered no; just that they have the kind of checkbooks that are needed for this sort of project. He added that gas and oil are different commodities, there are distinct sets of laws governing the two pipelines, and it wouldn't be good public policy to try to get even on the gas pipeline for perceived losses on the oil pipeline.

SENATOR DYSON asked what federal law says about owner/operators for the big pipeline.

MR. PERSILY replied there was no restriction, but FERC had some very tough firewalls that exist in statute that prohibit the exchange of information between, for example, Exxon the pipe company and Exxon the producer. Those firewalls are sufficiently secure and in Alaska's best interest.

[10:32:53 AM](#)

CO-CHAIR PASKVAN said Alaskans are interested in where their energy is going to come from and what it will cost. Hopefully at

the end of the day we as policy makers can make decisions to distribute natural gas to as many Alaskans as possible and to use oil to increase the treasury to help the other parts of Alaska that aren't immediately accessible to the natural gas. He thanked Mr. Persily for his participation.

[10:34:39 AM](#)

CO-CHAIR PASKVAN recessed the meeting.

[10:50:42 AM](#)

CO-CHAIR PASKVAN reconvened the meeting and noted that Bill Walker, David Gottstein, and Harold Heinze were not on the agenda, but they had all expressed an interest in giving short presentations, and they were important voices.

PRESENTATION: ALASKA GASLINE PORT AUTHORITY

BILL WALKER, Manager and General Attorney for the Alaska Gasline Port Authority (AGPA), stated that AGPA is in a joint development agreement with Mitsubishi Corporation and Sempra Energy, both of which contributed to the Wood Mackenzie report. He said he intended to talk about the information that AGPA had gathered over the last 15 years, and to highlight that the success or failure in getting a gas pipeline project hinges on the State of Alaska. He mentioned the declining TAPS throughput and offered his belief that Judge Gleason made a good decision on the TAPS valuation case.

MR. WALKER said that AGPA released the Wood Mackenzie "Alaskan LNG Exports Competitiveness Study" as soon as it came out, and would pay the authors to come to Alaska to present it if there was sufficient interest from the legislature. He commented that there are LNG projects all over the world, and he looks forward to the day when the federal coordinator has something to coordinate. Right now, there was a great deal of focus on LNG and not much on the coordination on a line to Canada. He mentioned projects in Australia and North America, highlighting that shale gas was affecting the market that the TransCanada pipeline was headed into at the ATCO hub. He reminded the committee that a risk in putting a pipeline into a hub was that success or failure was based on the price of gas at that hub, whereas putting gas on a ship makes the world your marketplace.

He displayed a list of North Slope leaseholder LNG projects bound for Asian markets, and commented that Alaska can learn a lot from what the three majors are doing with gas in other parts of the world.

10:57:17 AM

SENATOR FRENCH asked what was preventing ExxonMobil, BP and ConocoPhillips from committing to a project in Alaska similar to what they were doing in Australia, New Guinea and Indonesia.

MR. WALKER responded that it was a matter of motivation. There was no incentive for them to do a project here and no disincentive for them not to do it. At this point Alaska was more in the study process than the development process.

Continuing the presentation, he explained that AGPA told Wood Mackenzie to analyze the project using the highest costs they could find for a project. To that end, they used \$4.18 as the tariff to Valdez, which is considerably higher than the \$2.45 to \$3.15 toll that TransCanada talked about yesterday. This resulted in an estimated LNG cost of \$8.50 per million btu (mmbtu) delivered to the marketplace from Alaska. This compares favorably to projects in the Lower 48, British Columbia and Australia.

10:59:24 AM

SENATOR DYSON asked for an explanation of delivered cost, given the high cost of transportation to tidewater and the distance to market.

MR. WALKER replied it's the access to currently re-injected gas upstream that puts the Alaska LNG liquefaction project in an economically competitive position relative to other projects. Wood Mackenzie, using TransCanada data, calculated it at \$0.26/mmbtu. It makes quite a difference that Alaska doesn't have to do a lot of exploration and production, he said. By comparison, Kitimat's processing costs are about \$5.20.

SENATOR DYSON asked what the acronyms DES, FOB, and FID stand for.

MR. WALKER explained that FID stands for "final investment decision," FOB stands for "fee on board" and DES [refers to "delivered ex-ship."]

He displayed a bar graph illustrating that the State of Alaska controls 10.9 trillion cubic feet (tcf) in gas reserves between Point Thomson and Prudhoe Bay, which is more than ExxonMobil, ConocoPhillips, BP or Chevron. He noted that if Point Thomson was returned to Exxon, the balance would change. He displayed Wood Mackenzie's forecast of state and producer profits under

three, nominal dollar, price scenarios - NYMEX Strip, WoodMac Base Case and WoodMac Worst Case and said commented that the state can give up some of the revenue and cover some of the risk or do it all and take the revenue with the risk.

MR. WALKER stated that there is a premium market for LNG and if Alaska continues to stand on the sideline it will be filled by projects from Australia, Qatar, Papua New Guinea, British Columbia or the Lower 48. Without question, the single largest stimulator for increased North Slope oil and gas exploration would be a large volume gas pipeline. Recently the U.S. Geological Survey (USGS) characterized the National Petroleum Reserve in Alaska (NPR-A) as a gas province, and essentially said that viable development of oil and gas in the reserve depends on a North Slope gas pipeline to transport gas to market. If there's a place to put the gas and the market delivers a healthy return, there will be more exploration on the North Slope. He stated agreement with the Mr. Persily's characterization of AGIA as a permitting process. The lack of a gas pipeline in Alaska is not due to a lack of permits, as demonstrated by Yukon Pacific. They had plenty of permits, but couldn't get any gas. Similarly, TransCanada doesn't have any leverage to obtain gas. The problem is a lack of bringing gas to the table.

He explained that in the early 1950s the Canadian Parliament took control of the gas pipeline project from Alberta to Toronto and hired out of the private sector to build the line. One day after the pipeline was completed it was sold to the TransCanada Pipeline Company. In a somewhat similar story, Governor Bill Egan in 1971 announced to the potential owners of TAPS that he wanted the State of Alaska to be the owner. Hearings were held in Juneau at which time the oil companies objected vehemently to state ownership of TAPS, but committed to start construction very soon.

11:05:26 AM

MR. WALKER expressed concern that AGDC's Alaska Stand Alone Gas Pipeline (ASAP) project was too small. It won't provide low-cost energy to the state, it won't put more oil in TAPS and it won't bring more revenue to the state. "We see what a large line makes and what a small line costs, and the question is do we want something that takes revenue or one that makes revenue?" He said he firmly believes that Alaska will have one gas pipeline and he hopes it won't be the smallest possible, limited by AGIA.

SENATOR FRENCH pointed to a slide titled "AGIA Constricted Small Volume Line" and asked if he was referring to the overland pipeline to Alberta or a spur off that line.

MR. WALKER answered he was referring to the bullet line that is limited to .5 bcf as a result of limitations within AGIA.

SENATOR FRENCH asked if he would concede that building a 4.5 bcf/day pipeline to Alberta would put additional oil in TAPS.

MR. WALKER answered absolutely, if there's a market.

REPRESENTATIVE GARA asked if the in-state line actually would be 2.7 bcf/day.

MR. WALKER replied that would be the volume, but the capability would be 5.9 bcf/day. With compression, a 48 inch line can handle up to 6 bcf/day.

REPRESENTATIVE GARA asked where 2.7 came from.

MR. WALKER replied it will come from three trains from Bechtel; 3 trains at .9 bcf per train is equivalent to 2.7 bcf. He added that that is about the maximum that can be put into the market.

REPRESENTATIVE GARA asked if it wouldn't stand to reason that a 4.5 bcf/day pipeline would produce cheaper gas for Alaskans than a 2.7 bcf/day pipeline.

MR. WALKER replied he didn't see much difference in the tariff between 2.7 bcf/day and 4.5 bcf/day, but there was no question that selling gas from Valdez into the premium Asian market would bring more revenue to the state.

[11:08:36 AM](#)

SENATOR STEDMAN asked him to elaborate on the reference to three trains.

MR. WALKER explained that [the infrastructure to transport LNG includes a processing plant that consists of one or more trains] that compress and liquefy the gas at a ratio of 600:1. Liquefaction can be done in increments of .9 bcf per train. He said that matches the Alaska Oil and Gas Conservation Commission (AOGCC) offtake Rule 9 allowance.

CO-CHAIR WAGONER asked why that shouldn't be of concern to legislators, because that leaves no gas for markets in the rest of the state.

MR. WALKER responded that his discussions with AOGCC have led him to believe the volume could be increased to 3.3 bcf/day, and he believes that once people know there will be a pipeline there will probably be a lot of exploration and new gas finds while looking for oil.

CO-CHAIR WAGONER asked if he was talking about the Alaska Gasline Port Authority building a gas pipeline from the North Slope to Valdez or TransCanada building that pipeline.

MR. WALKER explained that building the pipeline would be done by the private sector. TransCanada could very well be the builder and operator, but the State of Alaska should be owner, at least initially. After the pipeline is built, the state may elect to sell it, just as the Canadian government did following completion of the Trans Canadian Gas Pipeline.

CO-CHAIR WAGONER asked what scenario ensures that the major North Slope producers will put gas into the pipeline.

MR. WALKER replied the state wouldn't start the project until it had that assurance. The state needs to come to the table and assume some of the risk in order for the project to move forward.

[11:12:31 AM](#)

CO-CHAIR WAGONER recalled that the respected and accomplished attorney, Spencer Hosie, warned the committee that that option would result in a long multi-year court battle, and the chance of success was just 50:50.

REPRESENTATIVE HAWKER asked why the major producers weren't clamoring for legislators to support the project if it was so attractive.

MR. WALKER speculated that it was because gas pipeline talks were very closely linked to talks about a reduction in oil taxes. He reiterated his belief that the state needed to step up and assume some of the risk.

CO-CHAIR WAGONER asked him to address the FAQ bullet point "Why Valdez vs. Cook Inlet for an export port?"

MR. WALKER said he believes gas should be exported from both locations, and was disturbed to learn that the data submitted to FERC by TransCanada did not address the pipeline to Valdez. That is required under AGIA, but they've been very clear about their opposition to any LNG export out of Alaska.

[11:17:57 AM](#)

CO-CHAIR PASKVAN thanked Mr. Walker for the presentation and welcomed Mr. Gottstein.

PRESENTATION: DYNAMIC CAPITAL MANAGEMENT, INC.

[11:19:09 AM](#)

DAVID GOTTSTEIN, President, Dynamic Capital Management, Inc., said he had been a successful professional large company stock and market analyst for more than 20 years, and an expert in logistics and supply-chain management. He expressed appreciation for the opportunity to share his thoughts on the development of a gas pipeline, and the role the State of Alaska might responsibly take to facilitate the development of a project.

He said he would describe 1) the dimension of the problem regarding Alaska's long term fiscal future; 2) the current problems related to developing a gas pipeline; 3) what a prudent investment and due diligence effort to develop and build a gas pipeline would look like; and 4) one option for getting an efficient pipeline project financed and built.

MR. GOTTSTEIN directed attention to the spreadsheet labeled "Permanent Fund Value Forecast" as of 2/21/11," and explained that it paints a broad picture of the State of Alaska's fiscal future over 25 years. The assumptions include: population growth of 1 percent per year, inflation of 2.5 percent, annual decrease in throughput in TAPS at -4 percent per year, and an annual price increase forecast on crude oil of 5 percent. At the time of the analysis, the Permanent Fund was valued at over \$39 billion and the Constitutional Budget Reserve Account had over \$9 billion. The price of oil in year 25 was shown to be nearly \$300 per barrel (bbl), but he believes that forecast is optimistic at best given that alternate energy solutions become more viable as oil rises above \$150/bbl. The return forecast portion of the spreadsheet describes the asset allocation in dollars and percentages, the expected return after fees, and an attribution analysis that forecasts a 7.1 percent total return. Doing the math makes it clear that all the state's major savings accounts will be exhausted within 25 years.

MR. GOTTSTEIN said the lack of a pipeline process is not due to AGIA, but rather to the price of natural gas. To finance a pipeline in North America in today's market, the model is to "Fill it Before You Build it." That means that a delicate set of economic alignments must be in place to attract the debt and equity capital necessary to finance a capital intensive project like the gas pipeline.

According to industry and government information, the minimum price of gas must be between \$6 and \$7 per mcf, but there is no forecast of when there will be that price scenario, and the price today is closer to \$4 per mcf. Clearly there will be no project with the traditional business model. This explains why Denali pulled out, the producers are resisting gas commitments, and TransCanada cannot create a market of buyers and sellers. The pipeline must be sufficiently filled with tariff-production gas volumes to cover the debt service, operations and maintenance and provide a guaranteed rate of return. The inability of the market to produce willing sellers of natural gas at the forecasted low prices explains TransCanada's current lack of progress. It is not AGIA.

11:26:13 AM

MR. GOTTSTEIN said the problem is how to get an efficient pipeline in the current low-price environment. The Alaska Gasline Development Corporation (AGDC) did an admirable job, but it was only asked to recommend how to quickly and cheaply get North Slope gas to tidewater. It was not asked to compare the benefit of efficiencies and economies of scale and the potential of larger projects against any possible time increase and associated costs.

MR. GOTTSTEIN directed attention to "The Proposed Alaska Energy Complex Project Analysis" chart in the packets and explained that it was standard private sector analysis tool necessary for any serious due diligence process involving billions of dollars of investment. He said that at the minimum the state should prepare a 30-year cash-flow analysis that includes tariffs enhanced oil and gas revenues, and the energy cost savings made possible by a more efficient gas pipeline distribution network. Every dollar increase in tariff reduces the number of value-added processors that are able to utilize North Slope gas as a competitively priced feedstock in their product offerings. The analysis envisions 24 scenarios, 12 distinct options, each including assumptions with and without the Susitna Hydro Project.

[11:29:27 AM](#)

MR. GOTTSTEIN listed the following scenarios:

- Base case - import LNG indefinitely.
- Forecasts regarding the new jack rigs and their potential success.
- Small diameter or "bullet" pipeline.
- Initial small diameter line followed by a larger line, assuming export markets come to fruition.
- A 36 inch pipeline initially that allows some degree of export.
- A 36 inch pipe initially and an additional pipe later for export.
- North Slope to Fairbanks gas pipeline - a hub concept with staged capacity conditioning plants.
- Small diameter oil pipeline and a conversion of TAPS to a gas pipeline.
- A North Slope LNG plant.
- The All Alaska pipeline as proposed by Bill Walker with the Alaska Gasline Port Authority (AGPA).
- Gas to liquids
- Repeat each scenario with the Susitna Hydro Project assumptions.

He encouraged the committee to expand the completed analysis to include the foregoing project scenarios.

MR. GOTTSTEIN expressed particular favor for the North Slope to Fairbanks gas pipeline hub concept. He described it as a "build it and then fill it" development project and plan of finance. The state does the least necessary to insure that an export capacity gas pipeline is built that delivers Alaskan gas to Alaskans in the shortest time possible, while maximizing the opportunity for exporting gas in the most economical fashion that requires no state subsidy, but is likely to generate high returns. It's a tall order, but the alternative is failure, he stated.

MR. GOTTSTEIN said the idea is to renegotiate AGIA and have the State of Alaska partner with TransCanada to build a gas pipeline. Through renegotiation, Alaska could eliminate the 500,000 mcf/day limitation. The state does not design, build, own or operate the pipeline in this approach. That could be left to TransCanada. In exchange for loan guarantees that are likely to cost no more than \$2-3 billion over time, the state owns the

rights to the excess capacity of an export-sized gas pipeline from the North Slope to Fairbanks. The state would commercially release the excess capacity into the market when it can absorb that excess capacity. Giving local utilities the opportunity to work with private sector partners like TransCanada to develop a companion project, and allowing connection to the hub concurrently, will likely be a considerably lower cost option in securing affordable long-term gas supplies when compared to importing LNG or the building of an inefficient small-diameter pipeline that does nothing to enhance North Slope oil recovery.

CO-CHAIR PASKVAN thanked Mr. Gottstein and welcomed Mr. Heinze.

PRESENTATION: ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

[11:38:37 AM](#)

HAROLD HEINZE, Chief Executive Officer (CEO), Alaska Natural Gas Development Authority (ANGDA), Department of Revenue, explained that ANGDA was a public corporation of the state that was created by the initiative process in 2002. The mission is to do what's possible to help get North Slope gas to market in a manner that benefits Alaskans.

He said would to cover two things, both from the consumer's perspective. First is The Alaska Pipeline Project (APP) and second is the ASAP work. [The Alaska Gasline Development Corporation's work on the Alaska Stand Alone Gas Pipeline (ASAP).] He explained that ANGDA participated in the open season for both the Denali pipeline and the Alaska Pipeline Project and believes the competition was beneficial. ANGDA has secured space in the APP for offtake in-state at discounted or "negotiated" tariff rates. He noted that in the past, ANGDA did work on a spur pipeline, and it's sitting in a "ready if needed" package.

MR. HEINZE explained that ANGDA has been in commercial negotiations with the APP for more than a year, and they have been very responsive to the fact that in-state gas delivery is an important part of their project. While it is not their responsibility, they view it as very important in the overall scope of their project.

[11:43:08 AM](#)

He displayed a chart comparing Cook Inlet retail natural gas prices and explained that it responds to questions that were asked about the Alaska Pipeline Project and what it may or may not mean to the Alaskan consumer as opposed to the bullet line. Prices per million btu (\$/mmbtu) comparisons were calculated for

flow rates of 500 million cubic feet per day (mmcf/day), 250 mmcf/day and 167 mmcf/day. He opined that this was a reasonable range of what in-state gas needs might be. For example, since the ASAP work was announced [on July 1, 2011], two businesses from Fairbanks, Golden Valley Electric and Flint Hills Refinery, announced they were looking at trucking LNG from the North Slope. If that project is operating in 2019 and 2020 it will be hard for the bullet line to compete. That might be 50 mmcf/day that suddenly wouldn't be in the demand side of the equation. He said he also finds it hard to believe that Cook Inlet would just go away, because it's a prolific basin that's been producing for decades and will continue to produce for decades at some level. He said that's why he chose three different rates. It becomes important because when you look at the efficiencies of using a big pipeline to move most of the distance in the state and then get off onto a smaller spur line, even when you are at low volume the big pipeline is efficient to use because you're riding with the other guy who is paying the ticket so you get all the advantages regardless of how little or much you do.

MR. HEINZE said it's fair to point out that at 500 mmcf/day, the prices for the ASAP bullet line, the spur off the Alberta line at Delta Junction and the spur off the Valdez line at Glennallen are essentially the same. Respectively they are \$12.61/mmbtu, \$10.35/mmbtu and \$11.13/mmbtu. What this says is that if there is a large market in the state there will probably be an opportunity, at a consumer level, to benefit regardless of the project.

MR. HEINZE said it's also very clear that the uncertainty of the ASAP bullet line is a very major risk. Until that volume is precisely and contractually defined with commitments, there is risk to the Alaskan consumer. Despite the state participation, the ultimate guarantor is the gas-user, and that is the Alaska public. He estimated that the commitment on an individual homeowner basis could be on the order of \$50,000.

[11:46:41 AM](#)

He related that over the last month ANGDA reviewed and analyzed the ASAP bullet line project plan and associated feasibility studies, and ultimately concluded that the Alaska consumer would be best served by the APP pipeline with a spur gas pipeline. He pointed out that the project plan presented is not a spur line plan, but that's okay because a spur line can generally start behind and finish ahead compared to the big project. Also, the trucking decision by Golden Valley Electric and Flint Hills may actually be a good solution for Fairbanks.

[11:48:36 AM](#)

CO-CHAIR WAGONER asked if he believes that Fairbanks will benefit from the decision because there will be surplus hauling and production capacity.

MR. HEINZE replied there is a balance of a couple things. The reality of the Fairbanks energy market is that it can be served by natural gas. It's logistically simple to supply Golden Valley Electric and Flint Hills and the military bases. Downtown and the university may have to have their own separate LNG receiving point, but it's not a big deal to stop a truck at a certain spot. The real issue is asking consumers 5-10 years down the road to stop trucking LNG, for which there is an operating cost, and instead pay for a spur line that has a capital recovery component.

CO-CHAIR WAGONER asked if he'd heard any discussion about what that would do to the market for Fairbanks Natural Gas, which currently supplies some users in the Fairbanks area.

MR. HEINZE replied he hadn't heard any discussion, but Fairbanks Natural Gas proposed a trucking operation from the North Slope. He added that he likes that Golden Valley Electric is a utility, because that means that any savings flows directly to the consumer.

[11:51:41 AM](#)

SENATOR FRENCH asked if he knew what the delivered cost would be for LNG to Fairbanks.

MR. HEINZE answered no, but the trucked price from Cook Inlet is similar to fuel oil; right now it's about \$24/mmbtu. In past discussions with GVEA, there was talk about a discount of about one-third off that price. He opined that, depending on the schedule, it seems doable.

He displayed a chart of Cook Inlet retail energy prices comparing the bullet line to several other options, and explained that they all have different risk/reward profiles, different investment requirements and different cost structures for the consumer. The bullet line was portrayed at three different volumes - 500 mmcf/day, 250 mmcf/day and 167 mmcf/day. For example, the latest Cook Inlet gas pricing formula for 250 mmcf/day is \$10.24/mmbtu, whereas it's \$15.26/mmbtu for the bullet line. White birch at \$250/cord comes to \$12.32/mmbtu. LNG import from Sakhalin at \$16/mmbtu, Canada at \$13-\$15/mmbtu and

the North Slope at \$12/mmbtu are all within the range of meeting the utility needs in Cook Inlet, he said. But the options would shrink if the bullet line throughput uncertainty could be eliminated.

[11:53:51 AM](#)

REPRESENTATIVE GARA asked what the legislature could do to make the big line to either Valdez or the Lower 48 a reality.

MR. HEINZE said don't make a choice between one project or the other. Advance in good faith both the Alaska Pipeline Project and ASAP. For APP it may be as simple as staying the course dealing with producer and other potential shipper concerns. The concern with ASAP is to spend the next several hundred million dollars doing things in the field in Alaska, not in Houston. Regardless of the project, on-the-ground work is always valuable and advances the time schedules.

[11:55:24 AM](#)

SENATOR DYSON recalled that the presentation Monday on the ASAP bullet line talked about \$19 LNG imported into Cook Inlet as opposed to \$15.26.

MR. HEINZE replied the numbers portrayed in the chart are trying to be fair in terms of cost at the wellhead and how the net back works.

[11:57:18 AM](#)

SENATOR DYSON asked him to discuss the potential to supply propane or compressed natural gas (CNG) to rural Alaska.

MR. HEINZE said ANGDA is interested in creating a wholesale propane opportunity on the North Slope. Propane is a logical alternative for supplying the one-third of Alaska that will never see gas from a gas pipeline. He added that most of ANGDA's efforts are focused on what has to be done immediately to solve the Cook Inlet problems over the next 9-10 years.

In conclusion he suggested that to develop a framework for the legislature's project investment decision, it would be necessary to first decide on what elements should surround that framework. Without specific direction and additional funding, ANGDA might not be much help.

CO-CHAIR PASKVAN thanked Mr. Heinze and announced that public testimony would start at 1:30 p.m.

12:00:39 PM

CO-CHAIR PASKVAN announced a recess.

1:33:05 PM

CO-CHAIR PASKVAN reconvened the meeting and announced the committee would hear public testimony.

MARY ANN PEASE, owner, MAP Consulting, said she had been an oil and gas consultant for the past 10 years, and most recently she focused on the propane project for ANGDA. This is a timely project and an attractive alternative for rural communities.

She explained that ANGDA developed the Alaska Propane Consortium to advance the concept of shipping propane from the North Slope. With proper commercial arrangements with the producers, the private sector could start delivering propane immediately as an attractive alternative to diesel. The idea is to start with existing propane facilities on the North Slope and then work with the private sector to build and expand storage and delivery infrastructure to support distribution to the Interior and rural Alaska.

MS. PEASE said she had also worked with ROUSH CleanTech, who helped develop liquid propane autogas fuel systems for a variety of Ford vehicles. Two of these trucks being used by the state's fleet services and another by CH₂MHill doing fleet services on the North Slope. There is definitely a sense that conversion to propane is a viable option, given the ready availability of propane on the North Slope, she said. Propane offers environmental advantages as a cleaner burning fuel and much lower maintenance costs for equipment.

She related that she also participated in the in-state bullet line project on behalf of the Pacific Propane Gas Association (PPGA). It represents propane marketers and related businesses throughout Alaska, Hawaii, Oregon and Washington. They have been an active participant in the Alaska Propane Consortium and propane advancement throughout the state and nation, she said.

MS. PEASE stated that trucking propane from the North Slope and then barging ISO containers to delivery points for river communities is a timely and commercially viable project. She urged the committee to support all efforts related to propane conversion, and suggested inclusion of propane as an alternative fuel, because it is the best alternative for lowering the cost of energy for rural Alaska.

[1:39:18 PM](#)

SENATOR STEVENS said he would hope that in addition to river communities that she would pay attention to the myriad of other small communities that use propane as well.

MS. PEASE said absolutely, and the propane map shows all communities in the state that import propane. She added that Hawaii is a big propane user, importing most of it from Asia, and is interested in a larger export opportunity.

SENATOR STEVENS asked how difficult it is to remove propane from the stream.

MS. PEASE replied there is a facility on the North Slope that produces about 500 barrels per day. It has expansion potential and would have little impact on Prudhoe Bay from an operational standpoint.

[1:41:56 PM](#)

CO-CHAIR WAGONER asked what the daily consumption of propane is for Alaska.

MS. PEASE replied Northern Economics determined that current propane utilization would be in the range of 2,500-3,000 barrels a day, and in the 10-15 year period would grow to 30,000 bbl/day.

CO-CHAIR WAGONER recalled that a Cordova businessman had a certificate of convenience and intended to transport propane to gasify the city. He asked if that venture ever got off the ground.

MS. PEASE answered that businessman wanted to file for a certificate of public convenience and necessity with the intention of becoming a gas distribution system, but to her knowledge no substantial progress has been made on that venture.

[1:44:13 PM](#)

MALCOLM B. ROBERTS, representing himself, stated that he has followed the issue of the natural gas pipeline since 1981 due to his 40-year association with the late Walter Hickel who passionately supported building a pipeline from Prudhoe Bay to Valdez. The gas would then be liquefied and shipped to lucrative markets worldwide.

MR. ROBERTS stated that over time he has come to the conclusion that the three major North Slope producers want to ship Alaska

gas into Canada to feed their petrochemical complex in Alberta and/or use it to "cook" the tar sands to produce synthetic oil. If this isn't possible, the producers want to warehouse the gas so as to not compete with their other LNG investments worldwide. That would benefit their stockholders, not the people of Alaska.

MR. ROBERTS said he was encouraged to hear comments from this committee confirming their understanding of the "owner state" concept with regard Alaska's natural resources and their commitment to set policy and negotiate on behalf of the people of Alaska. This obligation is based on Article 8 of the state constitution says that natural resources in this state must be conserved and developed for the maximum benefit of the people, he said.

The fact that the people of Alaska understand the owner state concept was illustrated by the favorable vote in 2002 that mandated that the state build an all-Alaska natural gas pipeline, but after nearly a decade that law has been ignored, thwarted and violated. This ignores a shovel-ready project that would bring tens of thousands of jobs to the state and many times that nationwide. In addition it will stimulate additional exploration on the North Slope and offshore.

MR. ROBERTS said he firmly believes that the all-Alaska natural gas pipeline project is one of the greatest environmental opportunities in the world. It's time to step forward and act as the owners and build an all-Alaska gas pipeline.

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REPRESENTATIVE GARA stated disagreement with his statement that Alaska gas will be used to fuel the tar sands in Canada. He pointed out that Canada has an excess of gas so it will be Canadian gas that will be used to fuel the tar sands. That is not a fair argument.

MR. ROBERTS said he would check and correct his comments, but that's what he heard when he was last in Alberta. He added that he's opposed to that process.

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DOUGLAS GIBSON, representing himself, expressed concern that heating costs account for a large portion of the annual budgets for government, businesses, school districts and military facilities. Anything that can be done to reduce those costs will help those organizations and homeowners and reduce property tax. Bringing gas to Fairbanks and Anchorage would be very helpful.

MR. GIBSON said he also believes that it's a big handicap to restrict the export of Alaska resources. That issue needs to be resolved as quickly as possible. He said Japan is an important strategic partner and that country would probably much rather rely on Alaska [for resource needs] than Indonesia.

He continued that high heating costs are particularly problematic for retired people. If utility costs could be kept down it would encourage retirees to continue to live in Alaska. He said he's learned a lot over the last several days and would encourage the legislature to continue to get public feedback on this important issue.

1:55:29 PM

JOE GRIFFITH, General Manager, Matanuska Electric Association (MEA) and President, ARCTEC - The Railbelt G & T, applauded the efforts to hold hearings on the biggest challenge facing the Railbelt and Southcentral. He said the MEA utility has a dire need for natural gas since it has none on contract and a plant that is projected to be online by 2015 to serve 57,000 members in the MatSu Valley and Eagle River. He explained that MEA is pursuing a supply of natural gas through a co-op gas aggregator that was created several years ago to find gas supplies for the utilities. Separately they are also pursuing LNG importation and the costly option of using diesel as a back-up.

MR. GRIFFITH expressed hope that the bullet line would be successful and observed that without substantial state participation it would probably never meet MEA's needs, because of the cost of moving a small amount of gas. He highlighted that the Regulatory Commission of Alaska (RCA) requires utilities to make purely economic decisions in order to determine that a utility's costs are reasonable.

MR. GRIFFITH suggested the legislature keep all available alternatives on the table and make no decisions until all the facts were in. He expressed appreciation for the continued efforts to get Cook Inlet gas to the users as well as bringing in gas from the North Slope.

CO-CHAIR PASKVAN asked what volume of gas MEA would like to have under contract.

MR. GRIFFITH replied his load estimate would be met by about 6 billion cubic feet/year.

SENATOR FRENCH asked what the average annual need was on a daily basis.

MR. GRIFFITH estimated the need would be about 13,000-15,000 mcf/day when the plant came online.

SENATOR FRENCH observed that that represents about three percent of the bullet line flow rate.

CO-CHAIR PASKVAN asked what cost estimate the utility uses for fuel supplies.

MR. GRIFFITH replied MEA uses \$8/mcf and all the estimates for the lower flow rates on the bullet line are above that. The cost of importing is probably about \$12/mcf, which is about 25 percent above what MEA believes is a reasonable number. He added that it will be difficult to get MEA members to accept a price that's above \$10/mcf.

CO-CHAIR WAGONER asked where MEA purchases its power, or if they have a combination of power purchase and production.

MR. GRIFFITH replied a small percentage comes from hydroelectric facilities at Bradley Lake and Eklutna facility, both of which are very economic. The balance is purchased from Chugach.

[2:03:48 PM](#)

ROGER PEARSON, representing himself, said he had two ideas. One was that the state needs to undertake a larger cost/benefit analysis for its citizens as opposed to the emphasis the governor's office has placed on stockholder profits. Along that line, it's important to look at the benefits for improved infrastructure for the entire state. Western Alaska is in dire need of infrastructure, particularly energy, and there is no shortage of need for increased energy in Southcentral, Interior and Southeast. He suggested that it was time for the legislature to look beyond the bottom line and start looking at the broader issues of what will benefit the state, particularly long-term, sustained infrastructure expansions. He further suggested that it would be most helpful if more information was posted on the various proposals. It would make it easier for the citizens to make honest evaluations.

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BILL WARREN, representing himself, said he was retired out of the Plumbers and Pipefitters Local 367, and had worked all over Alaska including the TAPS pipeline. He stated that despite years

of working on the natural gas problem the current situation is critical. It is difficult to keep utilities running and Nikiski has been "de-industrialized" due to no gas. It's a rustbelt situation with high unemployment.

MR. WARREN offered his view that the big oil companies and Alaska politicians have utterly failed Alaskans. He cited a meeting four years ago when his granddaughter was promised the in-state gas pipeline, but nothing has been done; the Susitna Dam that comes up every 10 years or so; the Enstar deal that comes up every three or four years with the current model being the high-tariff, small-scope Fauske/Chenault line; ANGDA that was supported by 63 percent of Alaskans but which the legislature fired; and Cook Inlet. With respect to AGIA, he said Exxon wants to keep its leases and is busy everywhere but Alaska. Legislators have traveled the world researching energy when the solution was right in Alaska's backyard. The solution is the all-Alaska natural gas pipeline. It's got the route, size and markets.

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GEORGE PIERCE, representing himself, stated that 63 percent of Alaskans said they wanted an in-state gas pipeline. He expressed concern that the legislature wasn't listening to the citizens, but to the big corporations and special interest groups. The resource belongs to the people and the people want an in-state gas pipeline. He expressed the view that the TransCanada pipeline was a waste of the resource.

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LYNN WILLIS, representing himself, said he was trying to determine whether or not he and his family can continue to live in Alaska. His concern is the time-gap between the last Cook Inlet production and first flow through the bullet line. There is talk about importation but it's necessary to oversee what's going on to get that ready. House Bill 280 that passed during the 26th Legislature said that the RCA had to look at both cost and supply. He said he worries about the vertical monopoly that is being built in Cook Inlet. He asked who will oversee and watch how that gas is offloaded and where, how it will be re-gasified, who will put it in the ground. A lot of work needs to be done to get ready for the importation. Perhaps it won't be needed, but it appears likely. Until recently he'd heard that 2013 and 2014 were the trigger points for importation. Yesterday he heard the trigger point was 2018, but nothing was said about needing gas for extraction of oil. Today he heard that Matanuska Electric Association needs more gas. Escopeta talked about

coming to Alaska to look for oil, but didn't talk about the amount of Cook Inlet gas it would to find oil. Nor did they mention a continuing supply or that a gas well that is shut down may not come back on line.

MR. WILLIS said it's nice to hear about future projects, but it's important to focus on the gap. There's an obligation to protect consumers.

CO-CHAIR WAGONER said that in the last several days one of the presentations included a slide that showed current and future gas storage facilities on the peninsula. He opined that the wells are too profitable for the companies to let them sand in, but he agreed that the timeline is tight.

MR. WILLIS said he's concerned about the next few years and wants assurance that he won't be driven out by price.

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KAYE LAUGHLIN said she was representing the Laughlin Company and four generations of Laughlins in Alaska. She related that she had done environmental and regulatory work in Alaska for three decades with an emphasis on oil and gas on the North Slope and Cook Inlet.

MS. LAUGHLIN highlighted that the Keystone XL pipeline was now in environmental litigation, and emphasized the need for a well-thought-out plan that encompasses everything, not just a bunch of projects. Her perspective is that it's unconscionable that the pipeline could pass someone's home and give them access to gas. With regard to which project should go forward, she suggested funding them all so they can proceed simultaneously rather than putting all the eggs in one basket. This will eliminate the risk of having to start from scratch and will make it possible to make rational decisions on each.

CO-CHAIR WAGONER asked if the Keystone litigation was on the second phase of construction, because he was under the impression that the first phase into Oklahoma had been completed.

MS. LAUGHLIN replied it goes into Cushing Oklahoma and ultimately down to refineries in Texas.

CO-CHAIR WAGONER asked what portion the litigation targeted.

MS. LAUGHLIN replied environmental groups are looking at the whole thing.

CO-CHAIR WAGONER asked if dislike of the tar sands was the underlying issue or if there were also environmental concerns past Cushing into the Gulf Coast.

MS. LAUGHLIN replied it's all of the above.

[2:24:12 PM](#)

TONY IZZO, representing himself, stated that he had 30 years of experience in the natural gas business, and was testifying to express concern about the gap that was mentioned earlier, because a regulated utility has an absolute duty to provide continuous and reliable service to its customers. It isn't an option. He referenced testimony in the last two days that indicated that some projects might come to fruition by 2018 and 2019 and said that based on his experience, that timeline was optimistic. Things come up and things can change overnight.

He said it's somewhat of a distraction for utility managers to have to worry about finding gas to fill their demand. Mr. Griffith, for example, said he needs gas by 2015. If he doesn't meet that responsibility he risks losing the certificate to serve those 57,000 people and somebody else will take that business. Whoever takes it will do exactly what Mr. Griffith talked about; they will find gas to fill the demand.

To meet their obligations over the next 10 years utilities are going to have to do something like Fairbanks is proposing, which is to truck gas from the North Slope. The concern is that efforts to get gas over the short term and over the long term may work independent of one another. Utility managers may have to make decisions in the next few years that will preclude participation in a project like the bullet line regardless of the fact that they may want that project to be a success.

MR. IZZO expressed optimism about the recent activity in Cook Inlet and openings in demand. He mentioned Buccaneer, Escopeta, Cook Inlet Energy and Armstrong and said he'd held a number of confidential discussions about potential supply and he could share that they're somewhere between \$6 and \$9.50.

SENATOR FRENCH expressed appreciation for his patience in waiting to speak and thanked him for sharing his thoughts and extensive experience to help him understand gas supplies particularly in Cook Inlet.

SENATOR STEVENS thanked Mr. Izzo for sharing his wisdom and helping to address what is a statewide problem.

2:31:37 PM

JERRY MCCUTCHEON, representing himself, said he'd been around the oil patch since 1958 and he believes that the only reality is Senator Wagoner's \$25 million bounty for the first jack up rig on station in Cook Inlet. Everything else that was said this morning, except for the improbability of the TransCanada gas pipeline, is wishful thinking. What gas there is on the North Slope is needed for oil production, he said, and it's being used at twice the rate that the AOGCC admits. He warned the committee not to make the mistakes of the Cook Inlet platforms and instead follow the example of Swanson River. He suggested the committee invite Mr. Seamont to appear at the Kenai hearings and get the real, not guarded, facts.

2:36:18 PM

PAUL KENDALL, representing self, said he wanted to show the committee something about magnetic fields.

CO-CHAIR PASKVAN reminded Mr. Kendall that the topic before the committee was in-state gas and AGIA and that they would like to hear his thoughts on that general topic.

MR. KENDALL responded that the discussion was really about the welfare and benefit of American citizens. He was testifying in an effort to contribute to a better community and the fact that testimony was limited to three or four minutes illustrated that the system was busted. He opined that the committee had serious business to take care of, and one way or another the citizens were going to bring America back.

He suggested putting in a low-lying gas pipeline in Fairbanks that was capable of carrying hydrogen. Two hundred miles from that put in a small power plant, and go another two hundred miles to the Yukon River with DC high-voltage cable. He said a 10 by 10 by 10 block of water with continuous 10-foot fall could power 60,000 homes. From there it would be possible to go into Fairbanks and under the ice flows from the surrounding three rivers. At that point there would be no excuse, he said. He suggested it was time for legislators to lead and help define the next ten years. He said the oil companies are getting ready to move out of Alaska; there's no reason for them to stay. But if Alaskans come together and develop new technologies the oil

companies will have to stay, and the citizenry could demand that the pipeline be filled.

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CO-CHAIR PASKVAN asked Mr. Kendall to conclude his comments.

MR. KENDALL expressed frustration that he hadn't had time to discuss the huge document that was in front of the members.

CO-CHAIR PASKVAN assured him that his document was part of the record.

MR. KENDALL concluded that Alaska has the chance to lead the world in energy production that is not reliant on oil.

[2:44:29 PM](#)

CO-CHAIR PASKVAN closed public testimony.

CO-CHAIR WAGONER stated that the committee intended to have further hearings on this matter, and specifically wanted to hear from the Cook Inlet producers about their 3-5 year plans and what they can do to meet the gas demand during the gap.

CO-CHAIR PASKVAN commented that it was August in Alaska and all seven members of the committee were present for the majority of the hearings.

[2:46:26 PM](#)

There being no further business to come before the committee, Co-Chair Paskvan adjourned the meeting at 2:46 p.m.