ALASKA STATE LEGISLATURE
JOINT MEETING
JOINT COMMITTEE ON LEGISLATIVE BUDGET AND AUDIT
SENATE RESOURCES STANDING COMMITTEE
October 13, 2004
9:35 a.m.

MEMBERS PRESENT

LEGISLATIVE BUDGET AND AUDIT

Representative Ralph Samuels, Chair
Representative Mike Chenault
Representative Reggie Joule, alternate

Senator Gene Therriault, Vice Chair
Senator Ben Stevens
Senator Con Bunde
Senator Lyman Hoffman

SENATE RESOURCES

Senator Tom Wagoner, Vice Chair
Senator Ben Stevens
Senator Kim Elton

MEMBERS ABSENT

LEGISLATIVE BUDGET AND AUDIT

Representative Mike Hawker
Representative Vic Kohring
Representative Beth Kerttula

Senator Gary Wilken

SENATE RESOURCES

Senator Fred Dyson
Senator Ralph Seekins
Senator Georgianna Lincoln

OTHER LEGISLATORS PRESENT

Representative Nancy Dahlstrom
Representative Hugh Fate (via teleconference)

Representative Carl Gatto
Representative Pete Kott
Representative Lesil McGuire
Representative Norman Rokeberg
Representative Bill Stoltze
Representative Ethan Berkowitz
Representative Eric Croft
Representative Les Gara
Representative David Guttenberg (via teleconference)

Senator Gary Stevens
Senator Hollis French
Senator Gretchen Guess

COMMITTEE CALENDAR

OVERSIGHT ON ALASKA NATURAL GAS PIPELINE ISSUES

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

Presentations by:

GOVERNOR FRANK MURKOWSKI
State of Alaska

DR. PEDRO VAN MEURS
Van Meurs & Associates

JAMES ZIGLAR, Managing Director/Chief Business Strategist
Municipal Securities Group
UBS Financial Services Inc.

CHARLES DAVIS, Managing Director
UBS Investment Bank
UBS Financial Services Inc.

ROBERT DOHERTY, Managing Director & Co-Head National Infrastructure Group
UBS Financial Services Inc.

JAMES SCOTT, Managing Director
UBS Financial Services Inc.

JOE FORRESTER, Managing Director
UBS Financial Services Inc.

PHILIP KOROT, Senior Vice President
Lehman Brothers

ROBERT MILIUS, Senior Vice President
Lehman Brothers

ACTION NARRATIVE

TAPE 04-29, SIDE A [BUD TAPE]
Number 001

CHAIR RALPH SAMUELS called the joint meeting of the Joint Committee on Legislative Budget and Audit and the Senate Resources Standing Committee to order at 9:35 a.m. Representatives Samuels, Chenault, and Joule, and Senators Therriault, Ben Stevens, Bunde, Hoffman, Wagoner, Elton, and Gara Stevens were present at the call to order. Also in attendance were Representatives Dahlstrom, Fate (via teleconference), Gatto, Kott, McGuire, Rokeberg, Stoltze, Berkowitz, Croft, Gara, Guttenberg (via teleconference), and Senators Gary Stevens, French, and Guess.

CHAIR SAMUELS acknowledged that there has been much concern with regard to the timing of this hearing. He explained that he set the date for this meeting and invited the Administration, at the behest of both the Joint Committee on Legislative Budget and Audit and the Senate Resources Standing Committee, to come forward with an update on the natural gas pipeline. He emphasized that the point of this hearing, knowing the political downside of it, is to not put it off for two months. Chair Samuels said, "So, I've worked very well, I think, with both Senators and Representatives, with Democrats and Republicans to try to keep politics out of this issue because it is way too important - no matter what happens on the 2nd of November - for all of us to make sure that this project has the best chance of going forward and shame on all of us if we do anything to stop the project."

Number 011

GOVERNOR FRANK MURKOWSKI, State of Alaska, paraphrased from the following written remarks:

Good morning and thank you for the opportunity to discuss with you an issue of significant importance to the future of our state.

I would like to thank the Legislative Budget and Audit Committee for the professional way it has performed its task of overseeing the Stranded Gas Act negotiations. I appreciate the fact that the issue has not been politicized but devoted solely to what is in the best interest of Alaska.

While my Administration and the Legislature share many common goals and responsibilities ---- none will have more jobs impact on the future of Alaska than the commercialization of our vast North Slope natural gas resources.

Success in this venture will require nothing less than the very best each and every one of us has to offer.

We saw an example of this over the weekend when in an unprecedented action our Congressional Delegation managed to obtain the Federal fiscal and enabling legislation necessary for this project to go forward.

So now it is up to us to fulfill the roles set out for us in the Stranded Gas Act by negotiating the state fiscal terms necessary to allow the project to go forward.

Our Administration has worked very hard on this issue. So far this year the Departments of Natural Resources and Revenue have spent more that 15,000 employee hours and over $1.9 million for contractor services; the Department of Law has expended $295,700 for inside counsel and an additional $597,200 for contract legal services.

GOVERNOR MURKOWSKI interjected [The following state is not part of his written remarks]:

Now, the good news is that 75 percent of this is reimbursable by the applicants.

Before going any further I want to make two things perfectly clear:

One ---- I am "not" here this morning to announce any preference for one gas project over another.

And two ---- active negotiations and discussions are continuing with "all" parties engaged in gas commercialization efforts.

These include the:

Alaska Natural Gas Development Authority;
Port Authority;
Producers Group (Conoco/Phillips, British Petroleum, Exxon);
TransCanada;
Enbridge;
and MidAmerican

Only two groups, TransCanada and the Producers, have submitted a Stranded Gas Act application and signed a reimbursement agreement with the State and thus are entitled to formally negotiate with the State.

In addition, the Alaska Natural Gas Development Authority and the Alaska Gasline Port Authority continue to work on their own plans for an All Alaska gasline.

The issue I want to discuss with you today cuts across all of these commercialization efforts.

Number 069

Since becoming Governor 22 months ago, I have hammered home one constant and recurring theme ----- Alaska needs to move now on construction of a gas pipeline.

Delay will seriously erode our chances at getting the line built. Imported liquefied natural gas is our chief competitor, and our nation would be better off with a stable, domestic supply of natural gas, instead of relying on overseas supplies.

I strongly believe that any position negotiated by the state must reward early construction, and penalize delay. Our goal is an in-service date of 2012.

It is with these thoughts in mind that I come before you today.

One of the very first legislative efforts I undertook as Governor was to work with Representative Bud Fate, many of you here today and the rest of the Legislature in reauthorizing and expanding the Alaska Stranded Gas Development Act.

This act clearly articulates roles and responsibilities for both the Governor and the Legislature.

The Act requires my Administration to bring you a proposed contract and, following legislative and public input, the Legislature will either approve or disapprove that proposal.

It is important to point out that the crafters of the legislation did not provide the legislature with the authority to modify any of the elements of the proposal.

Given the complexity and scope of a Stranded Gas Development Act contract ---- this provision is appropriate. And it places a grave responsibility on our Administration to advance the best possible proposal to you for your consideration.

However, given the Act's all or nothing approach if you disapprove the contract because of a fundamental disagreement over a major component ---- it could well be months before an alternative is brought back to you for your further consideration.

Therefore, I want to discuss with you today a fundamental concept that will underpin the proposal, which my Administration intended to present to you during the Legislative session.

I cannot discuss the details of confidential negotiations with the two applicants which have qualified to enter into negotiations with the State under the Stranded Gas Act - the Producers and TransCanada - but I can tell you that a critical element of a successful negotiation will involve the

State taking an equity position and significant level of project risk.

And with that equity position and project risk comes the associated awards.

I have made no secret of the fact that I believe Alaska should take an equity participation in the gasline project ----

> We may have missed the boat when the Trans-Alaska Pipeline was built ---- For example, had we been owners we would have been much better positioned to obtain more revenue for Alaska even though we would have taken a significant risk.
>
> And we have stood on the sidelines for nearly 30 years watching a lot of revenue flow to those who were willing to take the risk.

We "did" take the safer tax and royalty route back then and it "did" provide us with great benefit ---- but I think all of us have pondered from time-to-time what would have happened if we had taken some equity in the pipeline ---- perhaps equal to our 12 1/2 percent royalty share.

Now the time has come to address this issue again as we put together the gas line structure.

Number 124

Whether we are talking about an independently operated gas line or a producer built and operated gas line, it has become clear to me that the most likely path for starting construction soon will require the State to take an ownership position in the project and bear a certain amount of shippers' risk.

This equity interest could, for example, involve offsets in respect to taxes, royalties, or other obligations.

It could mean a bigger share of revenues for the State, but more importantly it may be the only path forward that gets a pipeline project underway.

The details of the overall package for a gas line project will be necessary for your final consideration.

As prescribed in the Stranded Gas Development Act, we "will" have all of those details incorporated into the proposal presented to you for your consideration.

But at this stage, I want to say you are to be complimented for holding these hearings and for otherwise working to educate yourselves on the subject of equity participation and risk taking. You have an excellent two days of presentations scheduled.

The more dialogue we can have in the ensuing months about the concepts of equity participation and risk sharing the easier it will be for the legislature to analyze our final proposal.

I also do not want our Administration's team to spend months negotiating a contract with equity and shippers' risk incorporated into the document only to have you tell me later that this concept is a complete non-starter.

Given the appropriate caveats, are you willing, or perhaps more importantly, do you believe Alaskans are willing to consider sharing in the risk and rewards from partial ownership?

Are we willing to "risk" downside potential in return for the upside potential and the certainty that construction on the project will begin sooner?

I personally think the potential risk is worth the reward.

And there are three reasons why I hold this position.

First, I believe that the gas markets in the Lower 48 are strong and will remain strong for decades to come ---- gas is the favored fuel for heating and electrical generation.

America's hunger for electricity is growing and this is expected to hold true for decades to come.

Second, through state's participation and assumption of risk ---- we make the project both "safer" and more "competitive" for the other participants. We may get a gas line project started this way and no other way. And that is important if our gas is going to compete with increased LNG imports.

Sharing investment cost lowers risk for other participants and provides for a high rate of return which is necessary in view of other worldwide opportunities for investment in energy projects.

All of this provides additional incentive for participation in the gasline project.

And third, I want generations of Alaskans to share in the upside of this project ---- remember that once the gasline goes into service it is going to operate for many decades ---- that is a generation worth of benefit to all of us here today both on the monetary return to the State and the availability of gas to Alaskans.

Number 184

Sovereign equity participation in energy projects is common in the world today ---- Governmental assumption of risk is a regular consideration in many oil and gas contracts.

Our principal consultant in the state's gas pipeline commercialization efforts, Pedro van Meurs, will be following me with a detailed discussion of what equity and shipper risk means.

We have world class experience available to us through the testimony of Dr. van Meurs ---- He has global experience in governmental risk taking. As you know he represents only governments, not energy companies.

I would again like to make it very clear that this equity issue cuts across "all" of the proposals being considered ---- each and every one of the commercialization efforts could contain components that are a departure from the traditional taxation and royalty position held by the state.

Let me close by saying that time is "not" on our side.

The window of opportunity for the commercialization of Alaska gas will not stay open indefinitely ---- We cannot afford a lot of false starts in our ongoing negotiating efforts. Again our goal is an in-service date of 2012.

The detail, complexity, and scope of these discussions is mind boggling ---- at the end of the day if Alaska's interests are to be protected to the maximum extent possible, every element of the contract must be intricately woven together.

As Governor I accept the responsibility in making a strong recommendation that Alaska consider taking a significant equity and shippers' risk positions.

I invite your input as well on this major policy decision.

Number 241

DR. PEDRO VAN MEURS, Van Meurs & Associates, informed the committees that he has been involved in negotiations on the government side for many projects and bidding rounds. In fact, he related that he has probably been involved with 20 successful projects and bidding rounds in the world. In the case of Alaska, Dr. van Meurs opined that this project can be a successful venture, although it will require new thinking. He began by discussing the risk-reward balance and referred to a graph in his testimony that illustrates how risk and reward work around the world. The graph illustrates that the more risk there is, the more profit [investors] want. Therefore, if a government is willing to accept more risk, [there is the potential] for more government revenues. "Governments can gain revenues, if there is less risk," he specified. Dr. van Meurs turned to the risk-reward balance in relation to stranded gas and related that usually there aren't enough profits with stranded gas. Therefore, he posed the question of how one would turn a stranded gas project that isn't profitable into one that is profitable. Many suggest that the [state] has to give up all its royalties, taxes, et cetera [in order to be profitable]. Although some nations did the aforementioned, it is much smarter to change the risk. The graph illustrates that by lowering risk a project can be done with less profitability. Therefore, legislatures shouldn't always be focused on the reward rather

the legislature must determine how it can alter the risk balance such that the project becomes economic. Many nations, he related, have been very successful when using the graph "Risk and Reward Balance for Stranded Gas" because they understand the risk-reward balance.

DR. VAN MEURS explained that governments affect the risk-reward balance in the following two ways: equity participation and production/risk sharing agreements. Sometimes the purpose of equity participation or risk sharing is to create additional revenues for the state, which is illustrated in the first graph entitled "Risk and Reward Balance." However, sometimes the objective is to make a stranded gas project profitable by lowering the risk, which is illustrated in the second graph entitled "Risk and Reward Balance for Stranded Gas." The two instruments that are [most often] employed throughout the world are production/risk sharing agreements and joint ventures.

Number 350

DR. VAN MEURS related that typically there are three types of joint ventures: a joint corporation with shareholders; a joint operating agreement; and limited liability companies (LLC) or limited partnerships. He explained that in a joint corporation there are shareholders and the assets are owned by the company and decisions are made by the board. Furthermore, capital is contributed to share capital. He highlighted an important concept, which is that individual shareholders can't opt out of the venture. It's also important to realize that a single corporation is a single taxable entity, and therefore when a joint corporate structure is created it becomes a new taxable entity. For that reason, oil companies often enter, particularly in the upstream, into joint operating agreements. Joint operating agreements are a different form of joint venturing. The [major] difference is that in joint operating agreements, the parties remain independent. Therefore, the parties pay their own tax and own a proportionate share of the assets. Furthermore, the decisions are made by working interest owners in a committee. He indicated that one familiar with the oil industry in Alaska is probably very familiar with joint operating agreements.

DR. VAN MEURS turned to LLCs, which he characterized as something in between [a joint corporation and a joint operating agreement]. He explained that with LLCs, the parties are independent members. He further explained that the assets are owned by the LLC and the decisions are made by a management

committee. However, the parties remain independent for tax purposes. The aforementioned makes the LLC concept attractive if one wants to invest in pipelines. "An Alaska state company, if it's an integral part of the state, wouldn't pay federal income tax; so it would be very satisfying if we could earn return on the profit and not pay federal income tax," he pointed out.

Number 408

DR. VAN MEURS moved on to the international experience with joint ventures and addressed why some nations have been successful while others have not. The notion of joint ventures started in 1960 with Egypt and an Italian state company. Both of the parties decided that the normal royalty and tax, which together was 50 percent in Egypt, wasn't a fair reward. Egypt wanted more, which led to the decision to do a 50:50 joint venture. However, the question became what to do if one side votes for something and the other votes against. The aforementioned led to the decision for each party to give 1 percent to a Swiss banker who would solve any gridlock. At that time Dr. van Meurs was an advisor, much like Bonnie Robson to the Alaska State Legislature, in the Netherlands. The Netherlands was discussing the possibility of equity participation. He explained that in 1959, the Netherlands discovered the largest gas field discovered in Europe. The government of the Netherlands realized that the only way it could gain advantage, since it couldn't change the royalties and the taxes, was to negotiate a very substantial equity participation. However, the government of the Netherlands also realized that all the gas would negatively effect its coal mines, which led to placing Dutch State Coal Mines in charge of the pipeline distribution system. The Netherlands example is one of the most successful gas field stories in the world.

DR. VAN MEURS continued with an example of a joint venture in Venezuela, which has stranded oil. Venezuela has probably one of the largest oil reserves in the world with 200 billion barrels of stranded oil in the Orinoco Delta and River Valley. No one wanted to develop that stranded oil because the royalties and taxes were too high and too difficult. Therefore, Venezuela decided to make a deal with 1 percent royalty and 50 percent participation. The aforementioned has resulted in 500,000 barrels a day of heavy oil production and companies such as ExxonMobil Corporation and ConocoPhillips are spending money on the stranded oil. With the high oil prices, Venezuela had

announced that it will increase the royalties to what it should've been.

Number 516

DR. VAN MEURS addressed Russia, which he characterized as an important competitor of Alaska. Although Russia went through a number of joint ventures, what's most interesting are its production sharing agreements. He explained that in 1992 Russia realized that it was an enormous political risk because it had no legal system and no laws. However, Russia also realized that its oil resources were the key to its future and thus Russia is doing very well with its oil exports today. Russia was successful with production sharing agreements. He explained that Russia agreed to [pay] for a share of the production so that there's full fiscal stability on a contractual basis, and therefore the country's instability isn't a worry. The aforementioned has led to ExxonMobil Corporation doing the Sakhalin project. Dr. van Meurs related that Russia has the largest gas reserves in the Bering Sea, which he predicted will be one of the largest liquefied natural gas (LNG) projects in the world. The reason the aforementioned project is going forward is because of the production sharing agreement.

DR. VAN MEURS turned to Brunei in the 1970s, which was faced with a huge gas resource it couldn't market. Brunei determined that in order to have an LNG project, it had to think differently, and therefore Brunei launched a 50:50 joint venture with Shell Western E&P Inc. ("Shell"). Brunei's 50:50 joint venture with Shell has been one of the most successful projects in the world and Brunei is the richest country in Asia because of this project. The same happened in Oman, which capped all royalties and taxes because it is "completely at the end of the trail as far as LNG." Oman also provided 50 percent participation. Now, Oman is exporting gas to the Far East in large volumes. Qatar is perhaps one of the most successful nations in the world for marketing gas, he remarked. Qatar is sitting on approximately 700 trillion cubic feet (tcf) of gas, which is about 20 North Slopes. Qatar realized it needed to find a way to market its gas.

TAPE 04-29, SIDE B

DR. VAN MEURS related that ExxonMobil Corporation did a highly unusual deal in which it agreed to participate with Qatar sharing an enormous percentage of the risk. [Qatar] agreed to invest 70 percent of the project with no royalties, just

corporate income tax. Today, Qatar is a successful exporter of LNG all over the world. Qatar is ExxonMobil Corporation's largest LNG area. He noted that ConocoPhillips just did a deal with Qatar as well. Dr. van Meurs opined that Alaska's competitors understand the risk-reward balance.

Number 654

DR. VAN MEURS highlighted that Norway has a long history of joint ventures. Today, Norway is the richest country in the European area. In fact, Norway is so rich that it doesn't want to join the European common market. He explained that Norway's successful petroleum policy was initially based on 50 percent equity participation and a sharing style profit sharing tax. He pointed out that BP and ExxonMobil Corporation are investing in the first LNG project in Norway. The aforementioned project isn't that profitable with perhaps only a 15 percent rate of return, and therefore the question is why those companies are going to Norway rather than Alaska, where a similar rate of return could be achieved. The reason those companies are going to Norway is the difference in the risk.

DR. VAN MEURS then turned to Malaysia and China, which decided to be involved in both equity participation and production sharing. Although Malaysia had no production of anything in 1970, it is now one of the largest gas exporters in Asia. Furthermore, Malaysia's national oil company that didn't exist 30 years ago is now one of the leading companies in the world. He then turned to Colombia, a country that faces much political unrest, and pointed out that it has been very successful in attracting investment with risk-sharing contracts. In fact, Colombia discovered so much gas with the oil that it was able to distribute gas throughout the country. Colombia is a wonderful example of how gas can be used to stimulate a local economy.

DR. VAN MEURS highlighted two of his clients, Trinidad and Tobago, for which he helped change their petroleum legislation. These two countries were sitting on these large gas resources without a market. Both Trinidad and Tobago decided to go for production sharing, take a share of the gas and use it as a basis for LNG projects. Dr. van Meurs noted that Trinidad and Tobago are competitors of Alaska. Both countries are exporting LNG to the East Coast of the US and other European nations. Another country that has successfully used production sharing is Indonesia. Actually, a part of Indonesia, East Timor, became independent. ConocoPhillips Alaska, Inc. is present in [East Timor] and investing in a large LNG project to export gas to

Asia. Again, the project has a low rate of return. He reiterated that the reason ConocoPhillips Alaska, Inc. is in Indonesia rather than Alaska is because of risk sharing. All countries that have developed their gas with risk sharing or production sharing are taking their gas in-kind, which can mean a lot of different things. Taking gas in-kind completely alters the risk balance of the contract and stabilizes the relationship, and therefore a contract can be signed for 30-40 years. The aforementioned is why 40 countries in the world use the formula to attract investment.

Number 733

DR. VAN MEURS moved on to the situation in Alaska and the issue of risk of which there are two kinds in a pipeline. There is the shipper's risk. He explained that the shipper commits to the capacity in the line similar to renting space in a building. The pipeline owner constructs and owns the building. Therefore, if the pipeline owner can obtain a long contract, building the pipeline wouldn't be difficult and the risk would lay in the shipper's contract. He posed an example in which there is a $14 million pipeline project for a pipeline that runs from Prudhoe Bay/Point Thomson to British Columbia/Alberta border and there is a tariff of $1.20 MmBtu [million British thermal units]. Suppose the pipeline company wants a 15-year contract for 22 tcf, which amounts to a $28 billion contract. In such a situation, the main risk is committing to a $28 billion contract, which is the shippers' risk. The guaranteed income of the $28 billion contract provides the pipeline owner the ability to invest the required $14 billion to build the line. Therefore, the oil companies can either spend the $14 billion to construct the pipeline or commit to a $28 billion contract and allow someone else to build the line.

DR. VAN MEURS addressed Alaska's issues. He explained that he hoped he has demonstrated that all of Alaska's competitors are doing quite well, while Alaska is not yet out of the "starting gate." Therefore, he suggested that Alaskans need to learn how to move from one "bar of risk" to another. The aforementioned is so important for Alaska because the project in Alaska is one with immense risks, quite unlike any other project in the world. The main risks in the Alaska Gas Project are the huge size of the project; the gas price risk; cost overrun risk; and regulatory risk. He then referred to a graph entitled, "Capital Expenditures related to current large world oil and gas projects (blue) compared to Alaska (red)". This graph shows the 40 largest projects in the world that are currently in progress and

compared it with Alaska's project, which is three times larger than any other project in the world. The large size of the Alaska project is a risk itself. If the project fails, the results for a company would be horrible. Therefore, there is no room for failure with a project that is three times larger than any other project being undertaken.

DR. VAN MEURS then directed attention to a graph entitled "IRR [Individual Rate of Return] comparison with Top Ten projects", which illustrates that the huge up-front capital requirements of the Alaska project result in a low rate of return compared to competing projects. "There's nothing Alaska can do about the rate of return of this project," he said. However, the rewards of the Alaska project are [potentially] huge. He turned to the pie chart entitled, "North American Gas Market: Even at $3.50 per MmBtu in Chicago it represents a $221 billion opportunity (nominal)". The pie chart illustrates how the $221 billion opportunity would be distributed and highlights why, even with only a $3.50 MmBtu in Chicago, it's so important for the Alaska project to come to fruition. Dr. van Meurs opined, "A huge project with a huge risk and a huge benefit, a very ... strange and difficult combination." He then turned attention to a graph entitled, "NPV@10% comparison with Top 10 projects", which illustrates that if the price is low and the cost overruns are high, the project is dead. The aforementioned is referred to as a big downside risk. He stated that the downside risk is large while the upside is very high provided that there is fiscal stability.

Number 843

DR. VAN MEURS reviewed the challenges of the Alaska project: an extraordinarily large project, a low rate of return, huge downside risk, and North America's complex regulatory framework. He related that he was the lead negotiator for Bolivia on the Bolivia Brazil pipeline. The regulatory framework took 15 minutes on that project. The complexities of the regulatory framework for Alaska's project make the project even worse. Therefore, unique solutions are required in order to get Alaska's project under way. In order to make Alaska's project economic it's imperative to lower the risk, he reiterated. Dr. van Meurs reminded the committees that at the April 7, 2004, joint caucus he suggested the following strategy. First, a stranded gas agreement must be developed. Second, a risk sharing package between the state and the producers must be developed. Third and above all else, there must be a federal energy bill. The latter, the federal energy bill, was

accomplished. The Alaska congressional delegation educated the entire Congress of the need to change the risk in order for Alaska's project to proceed. "The federal legislation that was passed is a classic example of a superb risk-reduction package," he remarked. He explained that the federal legislation includes enabling provisions for a significantly reduced regulatory risk, which is essential when competing with countries that have no regulatory risk at all. The federal legislation also includes federal loan guarantees, which reduce the financing risk. The aforementioned is essential with a pipeline of this size. The federal legislation also contains attractive tax provisions, which reduce the downside risk and keep the EOR [enhanced oil recovery] going in the North Slope, including gas. "There is no question in my mind that the passing of this federal energy bill is a gigantic step forward because this was the classic risk reduction package, now the onus is on Alaska," he opined.

DR. VAN MEURS related that [the administration] is negotiating stranded gas agreements, which are essential for this project. A robust stranded gas agreement with appropriate fiscal stability is necessary so that Alaska can compete with other production sharing contracts that offer sometimes 30-50 years of fiscal stability. Furthermore, it's necessary that there be a competitive fiscal regime. "The last piece in the puzzle is a risk sharing contract," he stated. Without changing the risks, there will be no project because all of Alaska's competitors are changing the risk.

Number 944

DR. VAN MEURS pointed out that there are two ways for Alaska to change the risk: equity participation; production sharing by taking gas in-kind. There is also the ability to change the risk with a combination of the two, which is what China and Malaysia did successfully. Dr. van Meurs opined that if the risk is changed, the Alaska project will come about. However, many are concerned that Congress didn't pass the tax credit that would provide the downside price protection. "Personally, I have never been positive about this tax package," he said. As Alan Greenspan, Chairman, Board of Governors, Federal Reserve System, has related, the tax credit doesn't align the parties. Furthermore, there is no incentive to save costs nor obtain the best price. Moreover, companies in a particular price band no longer have an incentive to do a good job. He opined that the interests of the US and Alaska would be misaligned [with the tax credit]. "Corporate welfare is not a good method to align

interests," he emphasized. Still, the downside price risk remains.

DR. VAN MEURS concluded:

> In Alaska we can create a risk sharing package that is in the interest of the state and will properly align the interests of the investors and the state, and will, to a significant degree, deal with the downside price risk. That's the solution. The downside price risk formula through equity participation and through taking your gas in-kind, that will solve the downside price risk. How will ... it solve the downside price risk if we're going for gas in-kind? ... If the state takes its gas in-kind and the price in Chicago is $1.00 MmBtu, what is the value of this gas in-kind? Negative. So, taking your gas in-kind means sharing the downside price risk. That is a much smarter formula than the tax credit. Why, because if the price is high, Alaska gets the benefit. So, that is why I believe the fact that the downside price risk was not dealt with in the US Congress is not a disaster. On the contrary, we can use that to our advantage to create a sensible price risk sharing formula that will be to the benefit of Alaska and the producers.

Number 025

SENATOR BUNDE related that Dr. van Meurs seemed to interchange the terms reducing risk and sharing risk, which Senator Bunde viewed as very different. Senator Bunde pointed out that if the state shares the risk, it doesn't necessarily reduce the total risk. Perhaps it even increases the risk, he suggested. Senator Bunde asked if [in the use of the aforementioned two terms] Dr. van Meurs is really referring to reducing the risk for the commercial entity rather than reducing the total risk.

DR. VAN MEURS said that Senator Bunde is correct. Risk sharing between the state and the investors means that the risk to the investors is lowered.

SENATOR BUNDE remarked that it's important for the public to realize that if the state becomes involved, the total risk isn't changed. Senator Bunde requested that Dr. van Meurs discuss the politics of the state being involved in such a project and the risk of cost overruns. He reminded the committees that the

Trans-Alaska Pipeline was a large economic opportunity for Alaska labor. Similarly, one of the things being touted to the public with the gas line is that there will be well paying jobs. Therefore, he suggested that for some Alaskans the notion of cost overruns would be positive because it could mean a higher paying job or a job that lasts longer. With the aforementioned logic, there is great pressure on the legislature to keep the good jobs going, which could increase the risk of cost overruns.

DR. VAN MEURS agreed that the cost overrun risk is immense on this project. In fact, a 20-30 percent cost overrun could kill this project, he said. He noted that some have suggested that without reducing the estimated cost by 10 percent, the project may not be economic. The cost overrun risk is a central issue. If the state participates, then the state participates in the cost overrun risk. He acknowledged that there would be pressure to maximize Alaska hire and jobs. In fact, the legislature has already said that even if it's more costly, it prefers the southern route. However, there is a balance between excessive, unjustified, uncommercial, and uncompetitive costs on a pipeline and the overall broad interest of Alaska. The legislature is charged with finding that balance, he said. By the state participating in the process, the aforementioned becomes more accessible because the state is on the inside of taking the cost overrun risk. Furthermore, the state being a partner in the project provides the ability for the state to have a more objective feel of the economic interest of the state.

Number 135

REPRESENTATIVE BERKOWITZ asked if the administration has a preference regarding a producer-owned pipeline. He also asked if there is any impact on the risk analysis if there is a producer-owned pipeline. Representative Berkowitz expressed interest in whether any of the examples or the risk sharing and production sharing ventures discussed were producer-owned pipelines. If so, he inquired as to the agreements that protect [the country].

DR. VAN MEURS clarified that the Alaska government is negotiating in good faith with two parties, and therefore he opined that it's inappropriate to say whether there's a preference at this point. With regard to risk sharing, he turned to Thailand for whom he was an economic advisor in the early 1980s when a large gas field was discovered in the middle of the Gulf of Thailand. Consequently, Dr. van Meurs was charged with helping the government define a new fiscal system

for gas. However, there was no market for the gas. The Thailand government said it would build the entire line, taking the entire risk. At that time, Thailand built the longest offshore pipeline in the world in order to get the project going. Today, Thailand is one of the most successful gas producers and has introduced gas to the petrochemical industry across the entire Eastern seaboard. He also related examples in which the producers built the line, such as Vietnam. Each project, he pointed out, has its own formula, benefits, and characteristics.

REPRESENTATIVE BERKOWITZ clarified his question. Of the 17 examples in which there is risk sharing, do the producers own a majority of the pipeline in any of those situations, he asked.

DR. VAN MEURS said that he hasn't done such analysis, but went through the countries. He related that in Russia the producers own a line [as is the case] in Brunei. However, in Oman the state created a special company. In Qatar the situation is one in which 30 percent of the pipeline is owned by the producers and 70 percent by the state. Norway is a very mixed picture. In Malaysia and China sometimes the [pipeline is owned] by the producers and sometimes independents. He reminded the committees that in Colombia the entire gas distribution system was done by an independent pipeline company that was separate from the producers. The LNG project in Trinidad and Tobago was entirely done by the producers. Indonesia has many different projects. Bangladesh, in some areas, is a monopoly. In Egypt and Yemen the producers have successfully participated [in a pipeline]. Dr. van Meurs reiterated that there is no automatic formula. What is most beneficial to the project and the host nation is what should happen, he opined.

Number 274

REPRESENTATIVE ROKEBERG related his understanding that Dr. van Meurs seemed to have a preference for the distinction between the shippers' risk reward versus the pipeline owners' risk reward.

TAPE 04-30, SIDE A

REPRESENTATIVE ROKEBERG further related his understanding that the federal loan guarantee helps lower or underpin the risk as to the pipeline construction. Therefore, Representative Rokeberg asked if Dr. van Meurs has a preference regarding

whether the state should be in the shipping model or the pipeline model in terms of equity participation.

DR. VAN MEURS answered that if the state wants to help this project in terms of equity participation, then the discussion is regarding the shippers' risk and possibly in the context of taking gas in-kind. He noted that other solutions are still being reviewed. However, if the discussion is about risk sharing, then it's about shippers' risk. He acknowledged that there is also the pipeline risk. Dr. van Meurs recalled that Jeff Brown, Managing Director, Merrill Lynch, pointed out to the committees that under the appropriate circumstances, the state could participate with debt financing packages and entirely finance the venture. The 80 percent federal loan guarantees, from the state's perspective, removes an enormous risk if the state wants to participate. The aforementioned is why the package passed in Congress has an enormous impact on the economics of Alaska's project because a significant amount of risk on 80 percent of the state's debt would be removed.

REPRESENTATIVE ROKEBERG surmised then that Dr. van Meurs is suggesting that the state should investigate both equity participation in the pipeline as well as production sharing activities that would be consistent with the state's royalty in-kind abilities under the current statute. Therefore, he understood Dr. van Meurs to be recommending review of equity participation and production sharing rather the singular albeit safer option because the singular option may not result in lowering the risks enough to provide an incentive.

DR. VAN MEURS confirmed that many options are still being reviewed and serious negotiations have been started with two parties. One of the options is precisely what Representative Rokeberg has described, that is taking shipper equity risk plus gas in-kind risk. The aforementioned is the strongest risk reduction formula, if that can be turned into the interest of the state. Dr. van Meurs said that at this point he isn't in the position of recommending anything.

REPRESENTATIVE ROKEBERG surmised from Dr. van Meurs' testimony that he preferred the LLC combination. He asked whether the fact that this project will pass through two different countries with two different business structures will cause any conflict. If so, how would such be overcome, he asked.

DR. VAN MEURS confirmed that it's imperative that the US and Canada sides of this project are understood. With respect to

the LLC model, Dr. van Meurs highlighted that it's interesting in the realm of Alaska's project because it would be good to obtain income tax free. Whether that can be attained has yet to be seen. On the Canadian side with Alaska participation, Canada wouldn't allow Alaska to pass through tax free and thus the formula would be different. From an organizational point of view, the limited partnership (LP) would be similar in structure to the LLC. Therefore, if the decision is for an LLC on the US side, then it would be logical to think of an LP on the Canadian side. However, he clarified that he didn't want to advocate at this time that there necessarily has to be an LP on the Canadian side because there are other possible combinations. He said that LLCs and LPs are almost different names for the same concept.

Number 080

SENATOR ELTON posed an assumption that if a portion or all of Alaska's royalty gas is taken in-kind, it would impose a duty on the state to market that gas in the domestic marketplace. The aforementioned doesn't seem like a typical governmental function, and therefore Senator Elton inquired as to how other governmental entities have accomplished such a private sector duty.

DR. VAN MEURS clarified that the in-kind concept could be taken broader and the state could even take some of its taxes in-kind. To the question, Dr. van Meurs agreed that if the state does take the gas in-kind, it does assume the responsibility to market that gas. However, some governments make arrangements such that the producers market the gas for a fee. Assuming the marketing is costly and the state assumes the marketing costs, it's a benefit for the investors who wouldn't have to assume the marketing costs and risks. Dr. van Meurs related that countries have made various arrangements with regard to who pays for marketing. He emphasized that this is important in Alaska because if the state is in control of the gas and the marketer of the gas, the state can take a different approach than would the companies in regard to marketing the gas in the state. There may be very significant benefits from the state being able to promote the benefits to a broader group of Alaskans by controlling a considerable share of the gas and the marketing obligation.

SENATOR ELTON related his assumption that if the state reduces the risk for shippers and producers, then the state would have to have a fairly good idea regarding whether it would work.

Furthermore, the state would have to have a fairly good idea how much gas might be diverted in the state. He asked if Dr. van Meurs is suggesting that the state will have a good notion of what the gas needs will be and are in the state. Senator Elton opined that if in fact the state is to take advantage of selling gas in state, it would be important to know how much gas is going down the pipeline.

DR. VAN MEURS agreed, adding that the in-state use of gas is a high-risk proposition for certain markets in the state. "Here again, Alaskans could increasingly become masters in their own home, ... if they looked at these opportunities ... risks and make an informed judgment and say, 'For the benefit of the state we're going to do X, Y, and X.'," he remarked. However, whether that would be recommended depends upon the details.

Number 147

REPRESENTATIVE GARA turned to the royalty in-kind issue, and asked if the potential royalty in-kind proposals only take the downside risk or is there also an upside reward. Representative Gara related his understanding that if the state does royalty in-value and gas is $1.00, the state wouldn't receive any tax revenue but wouldn't lose anything either. If the state does royalty in-value and gas is at $5.00, the state would receive a large amount of tax revenue. However, if the state chooses to go with royalty in-kind, the downside risk is that the state would lose money when it tried to sell the gas, while the upside doesn't seem to be any greater than if the state chose to go with royalty in-value. Therefore, Representative Gara asked if there has been review of royalty in-kind proposals that also provide the state with greater upside reward in order to offset the downside risk or does the royalty in-kind proposal only allow the downside risk without an additional upside reward.

DR. VAN MEURS said that Representative Gara's analysis/views are completely correct in that if the state takes its gas in-kind and there is the assumption that there is no negative royalty, then taking the royalty in-kind is riskier than taking the royalty in-value. The aforementioned is why these negotiations are so important.

REPRESENTATIVE GARA inquired as to Dr. van Meurs' thoughts on the equity share risk. The recently passed federal loan guarantees have a finite amount and the companies have, at times, said that they would be insane to put in an investment without a loan guarantee. If the proposal is for an equity

share, in which the state owns part of the pipeline, it seems that the state should also share in part of the federal loan guarantee.

DR. VAN MEURS again said that Representative Gara's analysis is correct. What happened in Congress creates an entirely new dimension of state participation because if the state [owns part of the pipeline], the state should receive a share of the benefit.

Number 195

SENATOR GUESS surmised then that the royalty in-kind is riskier, but asked if there is a greater reward in choosing royalty in-kind over royalty in-value.

DR. VAN MEURS clarified that his response to Representative Gara was based on Representative Gara's assumption that the state would receive the same price for the royalty in-kind gas. However, the royalty provisions of the state actually have beneficial clauses permitting the state to obtain some higher principle, which would be lost if the state chooses to go with the royalty in-kind. Consequently, care must be taken in that decision.

REPRESENTATIVE BERKOWITZ recalled Governor Murkowski's point that Dr. van Meurs only represents governments, not energy companies, and inquired as to why.

DR. VAN MEURS answered that one can't negotiate for a government unless that government has complete confidence in the fact that the individual is fighting for that government. If one negotiates for one side of the matter in one situation and on the other side in another situation, the confidence in that individual is gone. Dr. van Meurs related that his business depends on that confidence, and noted that he has had a successful business for 30 years.

Number 221

REPRESENTATIVE FATE asked if Dr. van Meurs considered treating the liquid components of the wet gas that Alaska, in Point Thomson and Prudhoe Bay, has in the same manner as it would in the negotiations on the gas itself.

DR. VAN MEURS specified that there are two aspects to the liquid components. In the case of Point Thomson, the Point Thomson

project involves liquids that would pass through the Trans-Alaska Pipeline System (TAPS) as well as gas. He clarified that [the state] isn't negotiating on the liquids part, and therefore [the negotiations] are concentrated on the gas part. Although the gas that would come out of Alaska isn't very rich, the liquids would remain in the gas. Therefore, the question regarding what to do with the liquids in the gas is important. Every feasible option is being reviewed to determine whether the liquids in the gas can bring some benefit to the state. "Obviously, if the liquids are part of the gas stream, then we have to ensure for the state that the state gets the best possible benefit out of the value of those liquids," he said. However, the precise formulas are still under discussion at this point.

REPRESENTATIVE CROFT noted his agreement with Dr. van Meurs that the federal legislation is a huge step forward for the state. He asked if the accelerated depreciation provisions, which he recalled only started in 2014, in the federal legislation match the governor's in-service date of 2012. He expressed concern with regard to having access in and out of the line for Alaska businesses and independent producers, especially when there are 120 days to enter into the regulatory scheme with Federal Energy Regulatory Commission (FERC).

DR. VAN MEURS highlighted that accelerated depreciation is of tremendous benefit with risk reduction. However, the entire interaction of the dates mentioned is being reviewed. With regard to access, Dr. van Meurs characterized it as a crucial concern and a top priority for Alaska. This line isn't being built just to transport gas from Point Thomson and Prudhoe Bay, it's being built because there is at least 50 tcf of gas in the North Slope. The desire is to have the pipeline full for 50 years, if possible. The aforementioned should be the focus and vision. He mentioned that the Congressional energy legislation includes very helpful provisions on access, and therefore the details of the access agreement need to be reviewed. In further response to Representative Croft, Dr. van Meurs said that it was his understanding that there is a 120-day window for FERC to write access regulations after the passage of the energy legislation. He added that [the state] will be very aggressively involved in the process.

Number 293

SENATOR THERRIAULT asked if Dr. van Meurs has had time to review the energy legislation and determine a dollar value of that package to Alaska's project.

DR. VAN MEURS replied no, but added that there have been intensive economic models and estimates of the benefits.

CHAIR SAMUELS informed the committees that the administration is looking for input for the legislature regarding whether [members] are willing to take a risk, in general terms. He charged the members with determining how to obtain constituent input.

The committees were in recess from 11:40 a.m. to 1:37 p.m.

Number 342

JAMES ZIGLAR, Managing Director/Chief Business Strategist, Municipal Securities Group, UBS Financial Services Inc., turned attention to the packet of information provided by UBS. Tab 1 includes the resumes of all of the people from different parts of UBS who have helped analyze Alaska's project. Mr. Ziglar highlighted the federal loan guarantee, the accelerated depreciation with certain aspects of the pipeline, the accelerated permitting and processing, including judicial review of lawsuits, as well as the application for the enhanced oil recovery [EOR] tax credit to the gas treatment plants are all positive developments encompassed in the recently passed federal energy legislation. Mr. Ziglar related the hope that he could shed some light on some of the possible unique solutions eluded to by Dr. van Meurs. Mr. Ziglar informed the committees that he and his associates would provide testimony on the following topics:

An overview of UBS.
The natural gas market, particularly the growth in LNG and its potential implications for this pipeline project and why action is required.
The project itself and the potential risks and rewards for the state as a participant in the project.
Financing, credit options, and business models, in particular a hypothetical situation in which the state could participate as an equity partner in a meaningful way while mitigating some of the risks.
Summary and conclusions.

MR. ZIGLAR informed the committees that in 2000 Paine Weber was acquired by UBS AG and together with other firms, it became part of the largest private bank in the world and one of the best capitalized firms in the world. He turned attention to pages 3 and 5, which specify some of the rankings that UBS has in a variety of areas. "We tend to think that we are now the premier investment banking firm in the world," he related. Mr. Ziglar highlighted that UBS is ranked first in the municipal bond business, which includes tax exempt and taxable bond issues. For at least the past 20 years, UBS has been involved as either an underwriter or a financial adviser in over 50 percent of all the bond issues performed in Alaska. "The breadth and depth of our structuring experience, particularly in the municipal and corporate area, I think, cannot be overstated when it comes to putting together a transaction of this magnitude,' he opined. Furthermore, on the corporate investment banking side energy is one of UBS's strongest calling cards as illustrated by the fact that UBS has managed the largest energy deals performed in the corporate market over the last few years. Moreover, UBS is a dominant player in the energy marketing, trading, and hedging business all over the world. Pages 7-8 outline UBS's activities in the aforementioned area. Mr. Ziglar opined that UBS brings to Alaska the ability to assist the state in managing its assets, risks, and financings in all their dimensions.

Number 493

CHARLES DAVIS, Managing Director, UBS Investment Bank, UBS Financial Services Inc., informed the committees that for the last 20 years he has spent most of his time working with natural gas pipeline companies and integrated energy merchant companies all over the world. He said he would discuss the competitive environment for natural gas around the world and how it impacts the feasibility of a pipeline from Alaska down to Alberta, Canada. Mr. Davis opined that there's a significant first-mover advantage as it relates to competition between the LNG market and Alaska's project because once the project is underway, the costs become "sunk." When one compares the competitive dynamic of a pipeline from Alaska into Canada, the cost competition will be reviewed on a variable basis as opposed to a full-cost basis. He informed the committees that the global LNG liquefaction capacity is expected to increase from about 6.6 tcf in 2003 to 9.4 tcf in 2007. The aforementioned is important because somewhere between 75 percent and two-thirds of the costs associated with LNG are located upstream of the re-gas terminals. Therefore, once the producers and the countries develop the liquefaction trains and ships, re-gas becomes

relatively inexpensive. He also informed the committees that US LNG imports are expected to increase to more than 2.2 tcf by 2010, which will amount to about 8-10 percent of US natural gas consumption.

MR. DAVIS opined that natural gas is probably one of the most underutilized natural resources in the world. As of 2003, natural gas reserves are estimated at 5,500 tcf, which is about 60 times the natural gas that was used last year. Furthermore, the 12 countries that currently export LNG hold only about 25 percent of the world's natural gas reserves, which means that there's a lot of gas that isn't being utilized. The aforementioned can be a large competitive threat. He informed the committees that the three countries holding about 33 percent of the world natural gas reserves are currently building liquefaction facilities. Although those [facilities] are very localized, the LNG is coming and will be a significant economic threat. He also informed the committees that the economic crossover point for transporting LNG via tanker versus via a pipeline has decreased to a distance of about 1,250 miles for an offshore pipeline to about 2,300 miles for an onshore pipeline. The difference is because offshore pipelines are more expensive to build than onshore pipelines.

MR. DAVIS turned attention to page 11 of the UBS packet, which illustrates that the LNG trade is very localized. The LNG trade can be broken up into the North American trade; the West African trade; the Mediterranean trade; and the Pacific trade. However, there are three geographic regions for LNG export: the Pacific Basin; the Atlantic Basin; and the Middle East. He noted that the thicker the line representing the LNG trade gets the more LNG exports it's meant to represent. The Pacific Basin accounts for approximately 50 percent of all LNG exports. However, UBS believes there will be significant investments in the Middle East and West Africa that will take advantage of significant gas reserves that aren't there today. Furthermore, it's estimated that there will be a 25 percent increase in the number of LNG tankers that will come on line by 2007. Therefore, once the infrastructure is built, the economics of the project become variable rather than fixed.

MR. DAVIS moved on to the import side of gas, which he characterized as a regional market. In the Pacific Basin and Asia, LNG exports account for about 100 percent of the natural gas utilized in those countries. Gas in that region competes with other fuels as opposed to competing with other gas. However, in Europe and the United States, LNG is really a

supplement for existing natural gas supplies and thus is more of a gas to other commodities competition. Also important to know is that the price of LNG is declining because of better technology. The costs have went from "2.50 m" to breakeven for full cycle to "4.00".

TAPE 04-30, SIDE B

MR. DAVIS continued on to the outlook for the US with regard to natural gas and LNG. He informed the committees that in 2002, the US used about 60 bcf of gas a day and that's expected to grow to about 72 bcf in 2010 and to about 86 bcf in 2025. However, domestic production in the US and Canada is flat to declining depending on the [region]. Domestic production in the US in 2002 was about 52 bcf with expectations of increases to 56 bcf in 2010 and 65 bcf in 2025. Therefore, the US is about 10 bcf shy a day today, which will grow to 15-16 bcf by 2010 and to 20 bcf a day by 2025. The aforementioned illustrates that there's a large "hole" to fill, which he characterized as a positive sign for Alaska's project. He reminded the committees that these LNG projects can be brought on in small discrete chunks and the relative cost for the re-gas on the LNG is much less significant than on a large pipeline. Mr. Davis related UBS's belief that LNG will account for about 40 percent of the US natural gas imports by 2010, which is a large increase.

MR. DAVIS informed the committees that LNG has been in the US for about 30 years in the form of liquefaction capacity and re-gas capacity. There are only four terminals in the US today. Most importantly, he related that there are over 200 proposals to build LNG terminals in the US, of which there are probably a couple of dozen serious proposals. Each new terminal will be able to import about 1 bcf of gas a day. Mr. Davis drew attention to page 16 of the UBS packet and opined that pricing is going to be significant with this project. Today the pricing model for LNG or gas around the world is very regional. In markets where LNG and natural gas compete head-to-head, such as in the US, it's typically priced off of an index of gas. However, in Asia, where LNG is only competing with other fuels, it's priced off a basket of fuels. As more liquefaction facilities are built and more cargos of LNG move across the world, a more worldwide commodity price for LNG is developed such that there are spot cargos going into different terminals and taking an arbitrage of different markets. The aforementioned will make that market much more competitive and allow people to hedge going forward in the LNG market.

MR. DAVIS summarized by highlighting that time is of the essence because competition from the LNG market poses a serious challenge to the feasibility of this project. As more LNG projects are built in the Lower 48, pricing visibility on gas will become more uncertain. Mr. Davis reiterated his earlier testimony that there is a first-mover advantage because once this project is announced and underway, he opined that it will deter several of the LNG projects from being built in the US. "We believe the state ... needs to continue to adopt its proactive attitude in developing this project and develop alternative business models that provide for optimal risk sharing among all the constituencies here," he opined.

Number 706

ROBERT DOHERTY, Managing Director & Co-Head National Infrastructure Group, Municipal Investment Banking, UBS Financial Services Inc., directed attention to Tab C regarding what is involved in building a pipeline and how the state can utilize its competitive advantages to have a profitable project that's good for the state. [With the passage of the Congressional energy legislation], incredible progress has been made with regard to the federal credit guarantees and a significant amount of risk is taken off the table. Mr. Doherty related that UBS believes there are three critical factors in terms of developing a strategy to get a pipeline completed. One factor is motivating all the participants. Another factor is assessing and mitigating the risk to the state. The third factor is utilizing alternative models in order to customize a solution that will motivate [participants] and minimize risks. These factors are discussed on page 18 of the UBS packet.

MR. DOHERTY stated that designing a strategy to motivate all the participants to commit to the project is the critical strategy that the state needs to implement in the near term. In order to accomplish the aforementioned, the state must understand and exploit each of the participants' wants, needs, and desires. The state must also offer incentives through alternative business models in order to secure the commitment from the participants. He noted that part of using participants is using other people's money first. The aforementioned has to be the state's number one goal, he remarked. Frankly, the Alaska delegation accomplished much of that over the course of last week [with the passage of the energy legislation]. Eighty percent of the overall project, to a certain extent, is other people's money. In terms of this first factor the state must also design a cost-effective transaction from a debt and equity

perspective. He noted that each of the successful projects mentioned by Dr. van Meurs capitalized on creating a structure to motivate and incent individual participants to meet their goals and mitigate their risks. The aforementioned can be accomplished in Alaska in a cost-effective and reasonable manner.

MR. DOHERTY turned to the second factor, which is to ensure that the state's participation level is optimized while its risk assumption is minimized. Understanding the level at which the state can participate and the amount of risk the state can assume is paramount. Achieving the second factor requires quantifying potential risks and rewards; designing a model to alter the traditional risk/return profile for a Petro-State such as Alaska; selecting incentives that most closely align with the state's interests; and understanding the state's "out of the project box" risks. He clarified that the "out of the project box" risks means understanding what happens if the project doesn't proceed as anticipated and the impact it will have on other projects in the state as well as other aspects of the state, such as its credit rating. He moved on to the third factor, which is to combine aspects of alternative business models to customize an optimal solution for the state. He opined that the key is in regard to how the structure is created to maximize the return with minimal risk.

Number 777

MR. DOHERTY turned to the state's position and what it has at stake, which is addressed on page 19 of the UBS packet. He highlighted that Alaska has a massive asset in the ground with a value today of near zero. As Mr. Davis said, if this project doesn't proceed relatively soon, it's possible that the competitive forces from LNG may have that asset remain in the ground with the same near zero value for the foreseeable future. Therefore, if the pipeline isn't built, any in-kind gas, revenues, and incremental tax [revenues] will remain zero. [The chart on page 19 of the UBS packet] regarding the incremental tax revenues from the pipeline [illustrates] the way in which one can view the value of the stranded assets from a tax perspective. The chart points out the variable revenues. "As it relates to variable taxes, the value of the assets in the ground are fairly dependent upon commodity price," he related. For example, if the market price per MmBtu is $3.00, the Department of Revenue estimates that the state would collect about $35 million in royalties, $106 million in severance tax, and about $340 million in corporate tax. For a sum total of

additional variable revenue, freed stranded assets, in the amount of about $481 million. The aforementioned doesn't include the project revenues from the transaction, only the tax revenues that would be freed from a project. Mr. Doherty clarified that there are stranded assets in terms of tax revenues, which are sitting in the ground and will not materialize unless the pipeline is built as well as additional project revenues. He noted that there are additional stranded assets in terms of the economic benefit from an operational pipeline in terms of jobs. The key is in regard to how much of the aforementioned incremental revenues the state should commit to the project in the form of equity. He explained that if the project isn't built, the revenues don't exist. However, if the project is built, theoretically the state could commit all of these variable revenues and be in no worse of a situation.

MR. DOHERTY commented that there needs to be a balance between aligning the participants' desires and interests. He noted the confluence of events in terms of high natural gas prices, LNG competition, and the federal credit guarantee. Although there are a lot of conflicting interests and motivations, the state can still establish an incentive mechanism that targets what people consider to be their risks and mitigate them. He then turned to the differing incentives of the producers, shippers, and state. From the producers' perspective, LNG competition poses the greatest threat to the producers' economics. As more LNG projects come on-line, the risk [to the producers' economics] becomes higher and the producers' willingness to commit will diminish. Furthermore, the commodity price risk is a significant factor. He emphasized that one of the benefits and downsides of this project is that it's 4 bcf a day and thus the commodity risk is "real and large." However, there are ways to mitigate the aforementioned. One can conclude that an increase in the supply of natural gas is a benefit and provides higher potential revenue to the producers. However, injection of 4 bcf of supply into the US could and probably would move the price of natural gas as a whole in the US. By definition, the aforementioned will impact the other natural gas businesses of those enterprises. Therefore, there are conflicting issues within the "sponsors' own house". From the shippers' view, transportation cost is the largest issue. Furthermore, commodity price risk is a significant factor with the shippers. If there is a guaranteed shipping contract, it becomes a significant risk that needs to be mitigated, especially with a 4 bcf project.

Number 849

MR. DOHERTY turned to the state's perspective, the state has a significant stranded asset. Furthermore, there is a limited window of opportunity, given the federal credit guarantee and competition from LNG. Moreover, the participation level and risk assumption must be fair. With regard to the federal government's perspective, Mr. Doherty clarified that the UBS packet was put together [before the passage of the federal energy legislation], which has resulted in the federal government assuming all the risk. The federal government's decision, he opined, is good for the state and the nation as a whole.

MR. DOHERTY, directing attention to page 21 of the UBS packet, explained that once the motivations and risks are identified, how the "risk box" is assessed is the key. He clarified that UBS views the risk/reward profile as a box and understanding how that box is shaped will help the state determine how it should proceed with a particular project. He informed the committees that there are three areas of risk: type of risk; risk position; and risk assumption. Mr. Doherty turned to the types of risk and began by discussing the construction funding/completion risk. The aforementioned risk was discussed earlier regarding whether cost overruns would actually be a benefit for the state. Although cost overruns may provide benefits for a few, it won't for the state. He related that the construction funding risk is traditionally taken by a sponsor or equity participant. With the federal loan guarantee, the federal government has assumed a portion of that. If the state was an equity participant, the state would assume part of that risk as well. Cost overrun risk is traditionally assumed by the sponsor or an insurance company as it relates to a guaranteed maximum price, although [the latter] is probably not an option for this size of a project. He viewed the cost overrun for the state as a one-time [risk] for the state as an equity participant. With regard to the permanent takeout risk, Mr. Doherty informed the committees that [UBS] will discuss the ability to get around the construction funding loan and enter into a permanent funding contract. The permanent takeout risk really lays with the sponsors and the federal government through the federal loan guarantee as well as the state as an equity participant. The performance/operational risk would lay with the sponsor and would be a constant risk.

MR. DOHERTY said that production risk at the wellhead would lay with the producer, although there is some risk associated with the state if the state takes in-kind gas. He posed a situation

in which the state, as an equity participant and shipper, has a contract with the producers and the other sponsors that isn't tight. In such a situation there is the possibility that if commodity prices fall to a certain level, it would no longer be economic to produce the gas out of the ground. "By definition, the state may not have its in-kind gas," he clarified. If the state, as an equity participant and shipper, doesn't get the gas out of the ground, it's a large problem. The details of the aforementioned should receive a lot of focus. The commodity price risk is a constant risk for the producer, shipper, and the state. Capacity gaps are related to how the shipping contracts are set up, that is can it be renewed when it expires. The initial shipping contracts/renewal risk traditionally lays with the sponsor. The state, as an equity participant, would be classified as a sponsor.

MR. DOHERTY, in response to Chair Samuels, returned to the permanent takeout financing risk. He noted that one can structure around permanent takeout financing risk. He also noted that [the permanent takeout financing risk] would be much more significant without the ability to utilize a federal credit guarantee. Traditionally, an entity needs to bear the construction risk. Once the project is completed, shippers can come on board, longer-term contracts can be established, and long-term debt can be issued. Often bondholders aren't willing to take on construction risk in terms of the long-term financing. However, once the project is built, the bondholders will take on a 10- to 15-year investment as it relates to the debt. In the current environment, the federal loan guarantee provides the ability to move through some of the construction risk issues and permanent takeout financing risks.

Number 944

MR. DOHERTY returned to his presentation and informed the committees that the risks that he mentioned are those that UBS believes the state should assess and understand in order to determine which to take. Mr. Doherty stated that the state must establish a clear loss position and the duration of the risks must be understood. He questioned, "Do you want to be in the first-loss position so the first dollar of loss is the State of Alaska's or do you want to get into a position to have someone else take the first loss, maybe higher returns, and the state just pay after that initial loss?" He said there are three ways in which to view this. There is the first-loss position, which is similar to a deductible payment. The second-loss position is when another entity incurs the first "X-million" in losses and

the state takes the rest. The third-loss position is one in which it's a combination or parity situation.

MR. DOHERTY related the need for the state to establish liability limits in the case of a catastrophic event, as well as potential ongoing exposure. In regard to [the state's] "tail risk", under a normal distribution curve the state would make a "good chunk of money from the project." However, there is a small potential that the state may lose money. There is an even smaller potential that could be catastrophic. From a policy perspective the state isn't in the position of taking the catastrophic risk, he opined. With regard to mitigating that tail risk, the state would have strong and reasonable returns while protecting the "out of the box" project risks. Additionally, the state must address the statutory, constitutional, regulatory, federal, and policy issues.

Number 003

MR. DOHERTY addressed sizing the risk box and the amount of absolute and relative risk the state is willing to assume. He explained that the absolute risk would define the [state's] risk limit while the relative risk relates to ensuring that given the state's position relative to other players, the state isn't out-negotiated. Therefore, the state's return, as an equity participant, is just about as equal or better than the other equity participants. Mr. Doherty recommended that in sizing the state's risk box it should use its expected benefits to establish a base amount of risk assumption. He reiterated the fact that a stranded asset that remains stranded is worth zero. Theoretically, all of the [stranded asset] could be pledged and [the state would] be no worse [off]. The aforementioned is the state's baseline, he said. Mr. Doherty identified the state's expected benefits to be the excess or net revenues from the sale of in-kind gas; the incremental tax revenues; additional economic benefits in terms of jobs and the related taxes.

MR. DOHERTY added that to size the risk box the state should evaluate its own level of risk assumption against that of other participants. The state, he indicated again, should be equal or better than the other participants. This is accomplished by determining the total threshold amount of risk as well as the preferred relative loss position commensurate with expected benefits. He mentioned that one can absorb a first loss, but one must be compensated for it. With regard to risk exposure, the state should analyze the circumstances under which the losses may occur, the extent of those losses, and the

probabilities of those losses. He likened the aforementioned to the state's breakeven analysis. Furthermore, the state should quantify its maximum risk assumption under a catastrophic loss situation. For instance, he questioned how the state would protect itself in a situation in which gas prices drop to $1.50. Mr. Doherty highlighted the need for the state to identify and mitigate ancillary risks, such as the credit ratings of the state. The federal credit guarantee goes a long way for 80 percent of the project costs, he opined. He identified other ancillary risks such as the opportunity cost for other state programs/projects. He specified, "Ideally, the state should structure a business model that limits all these risks to the project box."

Number 081

JAMES SCOTT, Managing Director, UBS Financial Services Inc., began his portion of the presentation, which can be found behind Tab D of the UBS packet. Mr. Scott acknowledged that the passage of the energy legislation in Congress changes things and moves [the state] down certain paths. He explained that UBS's approach began with a traditional pipeline funding model as a base case against which to compare the state's options. Alaska is unique geographically as well as economically when compared to the Lower 48 and other Petro-States. The alternative models differ depending upon the following dimensions: the level of state involvement/ownership; risk/reward profile of the state; the nature of federal loan guarantee/participation; the state's relationship with other participants; and the capital market implications.

MR. SCOTT directed attention to page 24 of the UBS packet, which addresses the traditional pipeline funding method. He explained that under the traditional pipeline method, the discussion is about project finance which attempts to limit the financing to project revenues. Under a traditional project finance methodology for a pipeline, the sponsors place equity at risk in the range of 20-40 percent. With an 80 percent federal guarantee, the sponsors' equity would likely be in the 20 percent range. Mr. Scott highlighted that FERC regulates tariffs for the pipeline itself with a return on equity in the amount of about 12 percent. The aforementioned is good for the equity participants because there would be a regulated rate of return on the investment. Generally, the project debt is sold non-recourse to the sponsors and the debt holders look to the shipping contracts to support that debt. He related that generally the life of the pipeline is 30 years, the shipping

contracts wouldn't be longer than 15 years. Therefore, the debt holders take some recontracting/renewal risk. However, that risk is mitigated with the federal loan guarantee. Mr. Scott pointed out that the total funding cost is the primary determinant of the overall tariff. The capital costs, the return on capital far outweighs the operating costs of a project such as this. Therefore, lower financing costs result in lower and more competitive tariffs.

MR. SCOTT moved on to the marginal tariff analysis, which can be found on page 25 of the UBS packet. This page provides an order of magnitude with regard to changes in the return equity. The matrix on page 25 illustrates the order of magnitude of the change in the tariff to recover capital over the life of the project. He explained that the matrix assumes the following: 100 percent of the pipeline capacity is utilized; total throughput of 4 bcf a day, with the state's throughput being 1 bcf a day; total all-in cost of debt of 7.5 percent with a 30-year amortization period; and total project cost of $20 billion with the state's share being about $5 billion.

Number 159

MR. SCOTT, in response to Representative Croft, specified that with the federal loan guarantee, the focus would be on structures that are 80 percent debt and 20 percent equity. The more equity in the project, the higher the tariff. He explained that [in the traditional pipeline funding method] the total cost of capital, 7.5 percent has been assumed for debt. Therefore, if 12 percent is assumed on the return on equity component of capital, the more equity in the total capital structure and the higher the blended cost of capital overall results. From a cost standpoint, it would be better to have more debt because it costs less than equity. However, there's a finite limit on the aforementioned because the debt holders look to the equity component to insulate them from loss. In further response to Representative Croft, Mr. Scott agreed that if one goes too far, the 7.5 percent debt won't be achieved. He noted that the FERC return on equity has been 12 percent, but it's subject to change, which is why the 10 and 14 percent returns on equity were also listed.

MR. SCOTT continued on to page 26 of the UBS packet, which relates a hypothetical breakeven analysis for the participants. The table on the left of page 26 illustrates that in a situation in which the gas at the wellhead is $1.00 MmBtu with a tariff of $1.73 MmBtu, the total breakeven price is $2.73 MmBtu. However,

if the commodity price is higher than the breakeven price, the producer at the wellhead receives a wind fall. On the other hand, the producer would suffer if the commodity price is less than the breakeven price. The table on the right of page 26 illustrates the daily and annual aggregations at different spot market prices. The key question for the state is regarding how much of the commodity price risk should it assume in order to advance the project.

Number 228

REPRESENTATIVE GATTO pointed out that the table on the right of page 26 points out that with a spot market price of $3.00 MmBtu, the daily economic gain is $1.1 MmBtu. However, a $1.00 increase in the spot market price to $4.00 MmBtu results in a daily economic gain of [$5.1] MmBtu, which seems to be an increase by a factor of eight. The annual economic gain changing the spot market price from $3.00 MmBtu to $4.00 MmBtu only seems to be barely one-half difference. Those numbers don't seem correct.

MR. SCOTT said that he would have to check with the individual who ran those numbers. Mr. Scott continued with his presentation and related that in the current environment, the state may need to assume a portion of this risk in order to make this project viable. He then turned to page 27 of the UBS packet, which discusses some of the alternative business models that UBS reviewed in looking to move the project forward. The alternative business models reviewed are as follows: state owned/direct support or equity participation; federal credit support; credit support by the state; "pure investor" support by the state; no credit support by the state; hybrid financing options.

TAPE 04-31, SIDE A

MR. SCOTT noted that the 20 percent equity contribution that the state will contribute can't be covered by the federal loan guarantee.

Number 002

MR. DAVIS said that he would now discuss a potential business model that would be well-recognized and well-received by the financial community. He explained that he would walk through a project finance structure that outlines equity ownership, flows of gas, and flows of money. He clarified that there are two

streams of money. One stream of money is from the commodity, which is the sale of gas. There is also a stream of money that comes into this model by virtue of a tariff that the shippers pay. He noted that through both of the aforementioned streams, the state receives money. He related the financial community's perspective of a FERC-regulated pipeline in which the shippers bear all the commodity risk while the owners of the pipeline bear no commodity risk. He emphasized that it's all about the contracts. Therefore, the people who ship the gas down the pipeline are on the hook to pay the tariff regardless of whether the gas flows or doesn't. If this pipeline is 100 percent contracted, the only thing the debt holders and the owners of the pipeline should care about is the contract.

REPRESENTATIVE CROFT asked if it has to be that way. He asked if there's ever been a profit-sharing [contract].

MR. DAVIS said it's never done that way. In the US, natural gas pipelines are regulated by FERC. There is a debt/equity structure and a reasonable rate of return on the equity is allowed and one is allowed to recover his or her debt and all the operating expenses. The operating expenses include the variable and fixed operating expenses, which means a return on and of capital. Theoretically, if a pipeline is fully contracted and it doesn't run full out, then [the state] will earn a fixed return on its money.

REPRESENTATIVE CROFT surmised, "I don't care if my tenants are making money or not as long as they pay the rent."

MR. DAVIS agreed, but noted that there is a risk that the tenant could default and the [leaser] would be on the hook for that. Mr. Davis noted that the Alaska project poses a unique situation in that it's likely that the owners of the pipeline will be the shippers, and therefore there would be a perfect alignment of interest between gas flowing down the pipeline and money being paid. However, he posed a scenario in which a third-party company ran the pipeline and related that there might be a risk that the third-party company had to build this pipeline and only 75 percent of the capacity is contracted. Therefore, 75 percent of the risk is covered and [the third-party company] would be on the hook for the remaining 25 percent, which he said it would try to sell on the spot market. Furthermore, [the third-party company] would have to obtain a tariff below market because the shipper realizes that [the third-party company] needs the shipper more than the shipper needs the [the third-party company]. Therefore, although the tariff may be $1.75, the

shipper will offer to pay $1.00 tariff. The competitive dynamic will be such that the [the third-party company] will realize that $1.00 is better than zero, and therefore the tariff will be below the market tariff.

REPRESENTATIVE CROFT related his understanding that the vast majority of pipeline projects are such that the shipper carries the risk.

MR. DAVIS reiterated that a FERC-regulated pipeline has to follow certain rules. However, there is no requirement for the [the third-party company] to contract for the capacity; [the third-party company] could take 100 percent spot risk, but the most that can be charged is the maximum rate that he assumed the state would contract upfront in this deal. Therefore, the upside is capped and the downside is limited by zero, and somewhere in between is where the rates will be established. He reiterated that this is a unique situation in that the equity holders of the pipeline are also the shippers and producers of the pipeline, and therefore have the risk up and down the value chain. Mr. Davis suggested that committee members separate the returns from the pipeline and the returns from the commodity because the pipeline will be a fixed charge on which [the state] will be on the hook and can't get off regardless of whether [the state] sells or ships gas.

Number 069

REPRESENTATIVE CROFT recalled that the governor was very careful to say that he and the legislature haven't decided whether it will be a producer-owned line or not. He opined that the shippers and owners aren't necessarily the producers.

MR. DAVIS related his understanding that there is 4 bcf a day of production and it works out nicely with three producers with 25 percent and the state at 25 percent. He noted that these numbers are interchangeable. In fact, the state could own the pipeline entirely and all the benefits and risks would go to the state. The difference is that the state wouldn't have natural gas to go on the pipeline to ship. Therefore, the example Mr. Davis is laying out is that if the state owns 25 percent of the pipeline regardless of who owns the other 75 percent, the state would have 25 percent of the gas that it would have to get to market. The state would have to be the shipper on somebody's line. Therefore, he questioned why the state wouldn't become an equity owner if the state is a shipper accounting for 25 percent of the revenue. He reminded the committee that the state would

sign the same gas contract regardless of whether the state owns the pipeline or is part owner of the pipeline, although the length and terms of contract may differ. In all likelihood the state will want to sign a long-term gas contract because the state will want that portion of its economics fixed.

MR. DAVIS [referring to page 28 of the UBS packet] explained that in a traditional pipeline funding model, there will be a LLC with a non-recourse to the sponsors, which will actually build the asset. He assumed that $20 billion would be required to build the pipeline. The scenario presented assumes the state and three sponsors each have 25 percent ownership in the project. Each sponsor is obligated to put in $5 billion. There is also the assumption that the state has 1 bcf a day of in-kind gas, which is important because it mitigates the state's risk from a shipping standpoint. The scenario assumes that the state enters into a shipping contract for 1 bcf a day. On the sponsor side, the producers with the other 3 bcf a day of gas can enter into a shipping contract as well. He noted that there continues to be the assumption that the pipeline will be financed on an 80:20 project basis. He also noted that the equity participants would be obligated to pay the tariff whether the gas is shipped or not.

MR. DAVIS, in response to a question, clarified that the state would be on the hook for only its portion of the tariff. If the tariff is a $1.50, then [the state] would be on the hook for a $1.50 times a bcf a day, which amounts to $1.5 million a day. The important thing to note is that the state, as a 25 percent owner, would suffer the consequences if it ships its 1 bcf of gas a day, but the other shippers don't live up to their end of the bargain. However, that would be highly unlikely because one wouldn't enter into shipping contracts with an entity that isn't investment grade and can't pay its obligations.

Number 136

REPRESENTATIVE GATTO posed a situation in which there are four participants, one of which goes bankrupt. In such a situation would the same amount of gas be produced or would the amount of gas owned by the bankrupt participant not be available, he asked.

MR. DAVIS related that in such a situation, the bankruptcy judge and the creditors want to maximize what they will receive. Therefore, if there are reserves behind the pipe, the bankruptcy court will want to ensure they move those reserves to market to

be sold. Therefore, those reserves will flow down the pipe and the tariff will be paid. He clarified that his point is that if one of the participants is in bankruptcy, the gas doesn't have to be transported for free. The difficult situation is one in which the gas marketer, who isn't naturally (indisc.) on gas, goes broke and there is no gas to flow down the pipe. In that instance, it's more likely that the bankruptcy court aggregates the contract.

REPRESENTATIVE GATTO inquired as to the state's liability if other participants without reserves go bankrupt.

MR. DAVIS answered that the state would be liable for its portion of the tariff. Given an 80:20 debt/equity structure, the state could probably afford for one of the equity holders to go bankrupt. He reminded the committee that the way these contracts are structured "that is not non-recourse, the equity is non-recourse." No one can force [the state] to put another dollar into the [corporation] once it's built. However, with a contract, the state can be forced to perform unless in bankruptcy. If all three shippers went bankrupt, the state would only be liable for its portion of the tariff and in all likelihood, the state's equity would be eliminated because the project would go into receivership because it couldn't repay its debt obligations based solely on the state's portion of the tariff. He suggested that there would probably be debt service reserves built into the structure such that the state could stand low commodity prices for some number of years before [the project moved into receivership].

CHAIR SAMUELS surmised that could be considered the "tail" that was mentioned earlier, and therefore something would be given up at the high end.

MR. DAVIS agreed, and noted that the extent of the liability would be the state's equity in continuing to ship gas. Presumably, the state would continue to ship gas. However, in all likelihood if gas prices went to a $1.00 and stayed at that price from 2011-2050, building the pipeline would be a huge mistake. "I don't think there's any way you're going to be able to structure yourself around that outcome, unfortunately," he said. In further response to Representative Gatto, Mr. Davis stated the state would likely be required to purchase business interruption insurance by the debt holders. Therefore, if the pipeline is irreparably damaged, the insurance would pay to rebuild the pipeline which would be recoverable in the rates. Moreover, the shippers would pay for it.

Number 196

MR. DAVIS continued his presentation and directed attention to [page 29 of the UBS packet]. He explained that the state receives 25 percent of the gas in-kind and the state sells that gas, the proceeds of which will likely be used to pay the tariff and any excess funds will flow back to the state on the commodity side. The money going into the operating entity will be used to cover the operating costs of the pipeline company. Any excess funds will flow back out as dividends. In response to Chair Samuels, Mr. Davis said that FERC [filed tariffs] provide for a 12 percent [return on equity].

CHAIR SAMUELS surmised, "In your scenario on the three-quarters and one-quarter, we'd get our 3 percent, they'd get their (indisc.) percent and the profit on an ongoing basis."

MR. DAVIS explained that if there is a $1 billion equity component, each year the state would receive $120 million in return on the equity that the state invests. Furthermore, as the pipeline depreciates, the state will receive [a portion] of the state's capital. Therefore, of the $5 billion the state's "notionally" investing, the state will annually receive one-thirtieth of that back as well. At the end of 30 years, the state would've received all of the money that it invested plus the equity and a 12 percent return. What happens in the real world is that entities continue to invest in pipelines after the 30 years. "Ultimately, no government agency is going to let somebody run this pipeline for free and so there will be some type of incentive rate structure put in; you'll always be able to earn a return on the pipeline," he explained.

Number 228

MR. DAVIS turned to a hypothetical way to fund this hypothetical case [which is discussed on page 30 or the UBS packet]. In the hypothetical case the state would enter into a shipping contract for 1 bcf a day with the operating company. One way to fund that obligation would be to issue $4 billion of revenue bonds, which is 80 percent of the project debt, backed by the federal loan guarantee. The state would also have a $1 billion tax-exempt revenue bond backed by various sources of credit support. The $1 billion would "notionally" be the state's equity portion of the project. Mr. Davis noted that rather than funding the $1 billion with debt, the state could write a check for all or a portion of it. He noted that there are various ways in which to

protect that, such as the general fund, the property taxes, the permanent fund, et cetera. The dividends that would come out of the operating company would be used to pay back the revenue bonds because that will be the return on the capital. He characterized the equity side of this as the "freeboard" because the state would receive say 12 percent annually plus one-thirtieth of the money back every year. The aforementioned would go straight into the state's [coffers] or be used to pay off these bonds. Mr. Davis explained that the state might need this other credit support because the other source to pay off the debt is the tariff, which allows the state to capture 100 percent of its costs. Therefore, this would be geared to a 1:1 ratio, which is frowned upon in the financial market because the state wouldn't be able to cover its obligations if anything went wrong under such a scenario.

MR. DAVIS pointed out [referring to a chart on page 31 of the UBS packet] that if one looks at the excess revenue to the state, one sees that the gas price in Alberta has to be around $2.00 mcf for the state to breakeven. He noted that this project probably wouldn't be built unless the project is 100 percent contracted. Mr. Davis then turned attention to page 32 of the UBS packet, which outlines the expected benefits and potential risks to the state. One obvious benefit to the state would be the freeing of significant stranded assets that would provide a lot of liquidity to the state. Furthermore, the state, as an equity participant, would be able to contribute in-kind gas in order to support the state's portion of the pipeline. Moreover, the state, as an equity participant, would have limited its risk exposure to $1 billion with a $20 billion project. "If you look at that risk-reward continuum, you get 25 percent of the upside, you're bearing 5 percent of the cost in a disaster scenario," he related. He highlighted that the combination of shipping contracts, federal loan guarantees, and the state's moral obligation creates a clearly financeable structure in the current market.

MR. DAVIS said that most of the risks to the state have been reviewed. However, he reminded the committee that if other sponsors don't perform on their obligations, that would be bad for the state. If the volume of equity gas produced by the shippers doesn't meet its contractual shipping obligations to the pipeline, the state will still have to pay its contractual obligation. Although there will be various sources of excess revenue to make up that difference, the state would still have to pay its contractual obligation. He noted that the state could sell that capacity to someone else. Again, it would be a

bad outcome for the state if the revenues from the sale of the gas are less than the [shipping] tariff and the state would suffer directly the difference between the sales price for a molecule of gas and the cost to ship it down the pipeline. Therefore, UBS's analysis has determined that the gas price would have to go to less than $1.73 in Alberta. However, he reminded the committees that other sources of revenue in the project would help mitigate the aforementioned to some degree. Mr. Davis said that the state should also keep in mind that the state, as a shipper, will want to make sure that whoever contracts for the tariff within the state has the financial resources to meet that obligation. Again, he highlighted that it will be difficult to input an equity component in the capital structure of higher than 20 percent if the state has an 80 percent federal debt guarantee.

SENATOR THERRIAULT requested [referring to page 31 of the UBS packet] some clarity regarding when the state is in the black.

MR. DAVIS clarified that the state would be in the black at $2.00. However, if the price of gas falls below $1.73, the state would have other sources of money to offset that [price]. He, reminded the committees that other producers wouldn't be able to avail themselves of those other sources of money.

SENATOR ELTON pointed out that if the state is an equity owner, it would also receive revenue from throughput.

MR. DAVIS agreed, but characterized it as "it's like losing money and making it up on volume." He posed a situation in which the state's tariff obligation to itself and its bondholders is $1.75. If the state can only sell the gas for $1.50, then for every molecule of gas shipped down the pipeline the state would lose $.25.

Number 387

JOE FORRESTER, Managing Director, UBS Financial Services Inc., highlighted the significance of the federal loan guarantee in terms of changing the state's risk profile and guaranteeing market access at the best possible rates. Mr. Forrester suggested that the committees bear in mind that under existing law, federally guaranteed debt for a project of this type must be taxable. "You can do a piece of a project with the federal guarantee debt on a taxable basis and the remainder of the portion on a tax-exempt basis, if you comply with applicable rules," he related. In the hypothetical case presented by UBS,

if the state attempts to do any portion of the $1 billion on a tax-exempt basis and are subject to the general rules applicable to other kinds of tax-exempt financing by other tax-exempt issuers there will be constraints upon the business structure the state develops. In this context, if one is discussing 25 percent ownership by the state, the impact of the private activity bond rules is the nature of the sales contracts at the other end of the pipeline. Generally speaking, the private activity bond rules, in the context of a revenue producing project, restrict the amount of the project that can be financed with tax-exempt bonds that are subject to private business use. "And if you have a long-term contract, the tail end of the pipeline to sell gas to other than a state or local government unit or a 501(c)(3) entity, that represents tainted private use and you fall into the trap of issuing taxable private activity bonds," he explained.

MR. FORRESTER, referring to page 34 of the UBS packet, stated that he would be remiss in not mentioning taking advantage of the unique status of the Alaska Railroad Corporation under the IRS code. Prior to 1984 and again in 1986, a number of entities were entitled to issue tax-exempt bonds for purposes beyond the constraints and limitations imposed by the IRS code on domestic, state, and local government units. He noted that in the case of the ARRC, the Railroad Transfer Act contained limited exemptions from those constraints. At least for railroad purposes or projects connected to the railroad, ARRC should be able to issue tax-exempt bonds free of the private activity bond limitations. If one just looks at the words, there are no limitations at all. Therefore, ARRC would be authorized as a matter of "black letter writ" to finance the entire $1 billion of remaining non-federally guaranteed state contribution on a tax-exempt basis. Furthermore, it could finance the ExxonMobil Corporation equity contribution on the federally guaranteed part. Whether the aforementioned authority could be used on a real world matter, is a political decision the state faces. Mr. Forrester concluded as follows:

> Nonetheless, I think it's important to realize that the important thing from the standpoint of the state ought to be to develop a business plan that makes sense away from tax-exempt financing, see if you can then tweak that business plan to enable you to take advantage of tax-exempt financing or to finance pieces of the project on a tax-exempt basis that don't involve the kinds of private business issues that the pipeline itself might present.

Number 471

SENATOR GUESS requested that Mr. Forrester review the model in which the state wouldn't use ARRC for the $1 billion of equity the state must provide in the hypothetical case.

MR. FORRESTER clarified that the following is his personal view, not that of UBS. He opined that Alaska has gained a great victory with the federal loan guarantee, which he characterized as the linchpin around which the state should build its business model. He foresaw the US Department of Treasury and the IRS getting very upset with an attempt to finance free of the private activity bond rules a project that wasn't a "twinkle in the eye of Congress" when the special language was inserted for [ARRC] and the Railroad Transfer Act. The state must ask itself whether it wants to fight the aforementioned battle in order to achieve only incremental financing cost benefit when the state can develop its business model such that 20 percent of the sales are at the tail end of the pipe into the spot market and clearly fit within the private activity bond rules and not rely on ARRC's exemption.

REPRESENTATIVE CROFT noted that the aforementioned refers only to the bonding part [of the project] and there's another tax advantage, which is the [state's] tax-exempt status. Representative Croft related his understanding that the state would decide not to take advantage of the state's tax-exempt bonding status, and therefore the state loses some tax benefit there while retaining its [tax-exempt] entity status. He asked if those two status are roughly equal or is one more important than the other in terms of long-term profitability.

MR. FORRESTER opined that the [tax-exempt] entity [status] is much more important than tax-exempt bonding, although he mentioned that it would be nice to have both.

Number 522

MR. DOHERTY provided the following conclusions [referenced on page 35 of the UBS packet]. He related that optimal risk sharing is critical to the project's success, which he indicated meant using other people's money first. He highlighted the benefits of securing the federal loan guarantee for a portion of the project; securing non-recourse project financing; securing long-term fixed commodity price and throughput contracts from producers/sponsors; securing a portion of contingent commodity

risk protection from shippers. Mr. Doherty turned attention to page 36 of the UBS packet, which relates UBS's conclusions regarding the state as an equity participant. He opined that the state as an equity participant is viable if structured appropriately. With the state as an equity participant the state frees its stranded assets; can contribute its in-kind gas to purchase 25 percent of the project as an equity participant; can create effective and appropriate risk sharing among the state, other equity participants, and the federal government; and can mitigate some of the commodity price risk.

REPRESENTATIVE CROFT turned attention to the following statement on page 36 of the UBS packet, which read: "State effectively contributes its in-kind gas to buy into 25% of Project as an equity participant." He questioned how the state will use its in-kind gas to [buy into 25 percent of the project].

MR. DOHERTY explained that if the state is a 25 percent owner of the project, the state needs to contribute 25 percent of the gas. Therefore, if the state structures its royalty regime such that it has beneficial interest in 25 percent of the gas being produced, the state would be on equal footing with a one-quarter participant in terms of the gas being contributed to the project or an equivalent shipping contract rate as well as an equivalent return on capital in the program.

REPRESENTATIVE CROFT surmised that the state has a royalty share of about one-eighth and a severance [tax] that approximates that in terms of impact. However, he didn't believe that the state owned one-quarter.

MR. DOHERTY agreed. He specified that UBS is suggesting the state review the overall Stranded Gas Act as well as the overall negotiating position of the state's potential returns and taxes for this gas to possibly combine [the severance tax and in-kind royalty] for a larger percentage. Mr. Doherty posed an example in which the percentage is 15, and suggested that the state could modify its equity level participation.

CHAIR SAMUELS surmised then that Mr. Doherty is saying that under the state's current deal, the state could take its eighth and the severance tax and property tax and could roll it "on to a ball" and say that [the state] gets 25 percent of the gas.

MR. DOHERTY agreed.

REPRESENTATIVE CROFT surmised that would modify every lease [the state] has now. He commented that the Stranded Gas Act wouldn't just be rewriting the tax structure.

MR. DOHERTY interjected that there would be a different regime.

Number 647

MR. DOHERTY pointed out that on page 37 of the UBS packet it lists aspects that UBS hasn't addressed today. The detail of those are found in Appendix 2 of the UBS packet. He said that there are other avenues available to mitigate risk or contribute to the overall pipeline system, in terms of alternative business models, that although ancillary to the federal guarantee and equity participation, can still bring value. Mr. Doherty said that UBS has attempted to provide a road map with regard to the risks, assessing those risks, mitigating risks, establishing a hypothetical business model from an [equity perspective that is viable and provides significant return to the state in nearly all commodity price environments].

TAPE 04-31, SIDE B

SENATOR GUESS inquired as to how a situation would be structured such that there would be access for future development as well as the ability to use natural gas in-state.

MR. DOHERTY suggested that there are several factors already in place and can be put in place to ensure that access. First, if the federal loan guarantee is utilized, it includes several provisions that ensure Alaskans can participate from an equity perspective and utilize the gas from the North Slope for local Alaskan use. Furthermore, [the federal loan guarantee] includes significant ability for Alaskan corporations to participate. As it relates to how the state decides to negotiate the underlying contracts with the participants, the state clearly has significant latitude to incorporate policy and economic issues as well as other important aspects that aren't financial.

MR. DAVIS addressed the issue of expansion. He explained that once the base pipeline is in place, expansions are economic because they increase compression on the pipeline or can loop the pipeline. Therefore, every expansion to the pipeline results in a decrease in costs for all the shippers. Therefore, he suspected that there may be the opportunity to expand the pipeline. He related that in his experience with pipeline expansions, the first couple of expansions are very economic.

CHAIR SAMUELS interjected, "Everybody wins if it goes down, and then there's an argument on incremental after that, I believe is what we've been told."

Number 690

SENATOR ELTON recalled that on page 35 of UBS's packet it discusses risk sharing and expresses the need to secure long-term fixed commodity pricing for shipping contracts. He inquired as to the duration of a typical shipping contract now. He also asked if a typical shipping contract spreads the risk.

MR. DOHERTY turned to the hypothetical case in which the state is an equity participant, and related that there is a natural hedge in terms of entering into a long-term contract for that gas because that equity participant owns it. Furthermore, if the sponsors and the current owners of the reserve participate as shippers, there is a natural hedge there as well. If the contract is less than the term of the debt, there is some renewal risk. However, from the bond market perspective, that renewal of the contract risk can be moved through structurally.

SENATOR ELTON asked if the aforementioned is predicated on the producers being the pipeline sponsors. Furthermore, will the answer remain the same if it isn't a pipeline by the producers, he asked.

MR. DOHERTY said that the state would receive significant benefits from the federal loan guarantee.

MR. DAVIS interjected that Alaska is a unique case. If the sponsors of the project are the producers, the sponsors will be willing to enter into much longer contracts than the state would be able to under a third-party shipper scenario. He opined that in today's market, the likelihood of getting users to sign up for a significant portion of the capacity say 12 years hence for 15 years in the future is remote. Therefore, he suggested that it is going to be the producers. He related that in today's market, a very long-term contract is 10 years and for a pure project advance pipeline a 15-year contract would be long-term. The market has become much shorter term in the last five years.

Number 721

MR. ZIGLAR concluded by saying that the UBS presentation has tried to provide the committee with "the good, the bad, and the

ugly." He noted that although there is a lot of good with the project, there are some risks. He opined that most people as well as the US Congress would agree that this pipeline is good for national energy security. Furthermore, this project would have a great positive impact on the state and its economy. The congressional action was positive and seems to express the need for the state to move along [in constructing the pipeline]. Based upon a number of scenarios reviewed by UBS, UBS believes that the Alaska project is both feasible and financeable. Furthermore, UBS believes that the state can participate as an equity participant with reasonable risk and an attractive return to the state if the state decided to be an equity participant.

The committee took an at-ease from 3:40 p.m. to 3:54 p.m.

Number 761

PHILIP KOROT, Senior Vice President, Lehman Brothers, informed the committees that the committee packets should include fairly extensive written testimony from Lehman Brothers, from which Lehman Brothers representatives intend to highlight key issues. He explained that Lehman Brothers' comments are directed at an overview of the capital markets and public-private partnerships in the capital markets concerning the energy sector. He related that since 2003 Lehman Brothers has been the number one underwriter in the US equity and energy new issuance market. Furthermore, it has acted as a book-runner on 39 transactions worth almost $6 million. During that same period of time, Lehman Brothers has been the number one underwriter of US investment grade energy debt, acting as a book-runner on over 20 transactions worth $9.5 - $10 million of debt issuance. Lehman Brothers has also been named project finance house of the year. He noted that Lehman Brothers is involved on the equity side as well as the fixed income side with most of the major projects around the world as well as with most of the energy sector players around the world. Mr. Korot characterized the discussion [on Alaska's project] as a combination of what the state can do from a public finance standpoint or from a public venture standpoint, either in partnership or coordination with the energy sector, the producer, or the pipeline.

MR. KOROT announced that he would provide an overview of the market, some observations of the market, how those would generally impact Alaska's project, and how those would generally impact some of the negotiations and decisions yet to be made. Until the details are decided, it's hard to know exactly what direction the project or projects should take. In general

terms, the projects that have been discussed, whether the LNG project or the pipeline through Canada, are economically feasible and financeable in the capital markets.

Number 793

ROBERT MILIUS, Senior Vice President, Lehman Brothers, said that he would begin by relating some general conditions in the capital markets as well as certain trends that will impact the financings of the Alaska project. He noted that most of the time and effort spent on this matter was done before the federal guarantee was available. Therefore, the framework was in regard to what could be accomplished in the private sector capital markets without much government support or incentives. He related that he would also focus on how he believes the Alaska project will be received by the capital markets and the handful of issues that will require significant management in terms of driving the marketability and financability within the capital markets. He said that he will also discuss specific financing structures, options, and alternatives available as well as how the Lehman Brothers sees the role of the state and federal governments in moving this project forward.

MR. MILIUS turned to the general themes of the capital markets, and acknowledged that some of the themes are fleeting. The first theme is that over the last year and a half the economy has been strengthening, although there has been a fair amount of volatility. The second theme is that energy has been "red hot" in the capital markets. Never before has there been such appetite for exposure to the energy sector, within the equity capital markets as well as the fixed income side. Virtually, all sectors of energy is trading at all time highs in the equity market.

REPRESENTATIVE CROFT asked if people want to push money into this or is there a lot of money that wants to enter into the energy equity market.

MR. MILIUS answered that he believes some of it has to do with commodity price fundamentals. Interestingly, if one were to look at the stock for Chevron Texaco, it recently reached more than $50 a share. The last time that stock was at that point, it was spring of 1999 when oil prices had dipped to about $10 [a barrel] at the end of 1998. When oil prices recovered and the price [per barrel] hit the mid to upper teens was the last time Chevron Texaco was at the price it currently sits in the equity markets. Now it's a very different commodity price environment,

and therefore one could argue that this market is under bought rather than needing to be sold. More relevant to this project is the most recent time of strong gas prices, which was 2001. At that point, gas prices were backward aided and the forward curve was a declining forward curve. However, today gas is in the $5-$6 range and oil prices five years out are in the $30-$35 range. There is no precedent for such perceived sustainability of commodity prices in the history of the energy markets. In fact, across the board this is an all time high of commodity prices and there's a strong view that these conditions are sustainable. The key message is: "The capital markets are very much aware of these trends in commodity prices, obviously, and also have a view with both equity analysts ..., fixed income analysts on Wall Street, and other industry experts sort of share the view that commodity prices are sustainable."

MR. MILIUS turned to interest rates, which are at close to 40 year lows. However, within the energy [market] the supply of new corporate debt issued into the capital markets has declined meaningfully. Just a couple of years ago, new supply was in the $30-$35 billion a year range, while today it sits at $12-$15 billion. There is a fundamental supply-demand tension that works to the benefit of issuers, and because of the strength of the commodity prices, he viewed it as sustainable. What's happening is that all the energy companies are generating tremendous amounts of cash that they are using to pay down their debt or buy back stock. For example, Chevron Texaco, ExxonMobil Corporation, and BP all have negative net debt, which means their debt is approximately zero. The aforementioned is important to understand because investors in the fixed income markets essentially have no opportunity to gain exposure to big oil because there are no bonds to buy. Therefore, the only opportunity the capital markets have for exposure to these companies in the fixed income side is this type of non-recourse project financing type debt that may be issued for Alaska's project.

MR. MILIUS turned to the re-emergence of non-recourse project financed debt, specifically within the energy sector. The last time there was a significant amount of new issuance of this non-recourse debt was in the late 1990s when there were a number of project financings in Venezuela to finance the public-private partnerships in the oil sector. At about the same time, the first LNG project in Qatar was financed in the capital markets. However, in the late 1990s there was a tough period in the economy when Russia defaulted on its debt and the capital markets had limited appetite with regard to placing money in

emerging markets. Obviously, Alaska is in a different situation than in other parts of the world. He predicted that in the near term there will be a significant amount of new issuance of this sort of project finance debt. He provided examples.

Number 811

REPRESENTATIVE CROFT remarked that those examples could mean that there's a market for it or that it has been used up. He surmised that Mr. Milius means that there is significant unmet demand for even a project of the size of Alaska's project.

MR. KOROT answered, "Significant capacity to take it in." He estimated that the cost of capital for a project of this size and complexity is probably in the 8-9 percent range on a blended basis. Obviously, the aforementioned would vary depending upon when the project comes to market, the interest rates at that time, the extent of the federal loan guarantees, and the various participation of other pieces of debt. "There's a significant positive aspect in the market, both for this type of project finance as well as the various segments of the project finance, whether or not they have federal guarantees," he said.

MR. MILIUS, in further response to Representative Croft, related that Lehman Brothers believes that [the Alaska project] is eminently financeable in the capital markets, both in the fixed income side and the equity side. The later is important because there still remains a fair amount of uncertainty regarding who will ultimately own the equity in this project. There is the potential for a significant amount of equity ownership in this project in the capital markets. He reiterated that he sees an incredibly robust appetite for exposure to a project like this. Investors understand the dynamics in the natural gas markets in the US and increasingly understand the structural deficit that is faced in the US. The investors also see this as a market that will continue to be strong from a commodity price standpoint.

Number 950

MR. MILIUS turned to the key selling points and key considerations with Alaska's project as well as the framework Lehman Brothers would suggest. If one observes the fundamentals in the US natural gas markets today, one would see that the production in the Lower 48 market is in the neighborhood of 19 tcf a year and pipeline imports from Canada have been fairly consistent over the last 2-3 years at about 4 tcf per year,

which amounts to a market of about 22-23 tcf a year. He related that LNG has been a miniscule part of the equation and only in the last two years has it averaged 400-500 bcf total, which is less than 2 percent of the total market. Over the next 15 years or so, Energy Information Administration (EIA) projected data shows production in the Lower 48 at about 18-19 tcf and pipe imports from Canada at about 4 tcf per year, both flat. Assuming demand rises to 30-35 tcf, there is a potential gap of 12-16 tcf per year that needs to come from somewhere. While the first-mover advantage is very important, he emphasized that it's also important to remember that if the true projections are that demand will rise to 32-35 tcf per year and if EIA data is correct that Lower 48 production is flat, the US will need all the gas it can find from all possible sources. Therefore, even with the potential in Alaska of a 4-5 bcf per day range, which would increase [the Lower 48 production] to about 2 tcf per year with LNG imports of 6 tcf per year 7-10 years out, there is only 9-10 tcf total and that amounts to about 32-33 tcf per year going forward.

REPRESENTATIVE CROFT asked if 6 tcf is an optimistic number for LNG.

MR. MILIUS replied yes, for the near term in the next five to seven years.

REPRESENTATIVE CROFT related his understanding that Mr. Milius believes there is a potential market with just equity investors.

MR. MILIUS said that what he is talking about is similar to independent pipeline companies. The potential market that is potentially interesting is the master limited partnership (MLP) market, which has grown to be about a $60 billion market. Historically, the MLP market has been sold into the retail marketplace and its investors seek yield. The MLPs are tax efficient entities that are publicly traded partnerships that don't pay taxes at the corporate level, although the partners are taxed individual. The MLP market is potentially a very "deep one" for a project such as this, although he surmised that there might need to be changes to parts of the tax code to broaden the market to potentially draw more money into a project like this. The Alaska project is exactly one in which the MLP market will be very interested. Therefore, he related that there are pockets of equity capital beyond the sponsors and immediate stakeholders who are interested in owning a piece of this project.

MR. KOROT remarked that just as there are different types of fixed income or debt instruments in financing the project, Lehman Brothers believes there are different ways in which to bring the parties together to provide the equity. Having a capital market component of the equity is an alternative that is attractive. The question is how to bring the lowest cost of capital to the project on a blended basis while taking advantage of all of the benefits available so that the tax law changes on depreciation mean that the dividends on an MLP are basically equivalent to a tax-free return for a potential equity investor. Therefore, the rates of return could be offset because [the investors] are lending the money, putting in equity, and receiving a tax-free return.

REPRESENTATIVE CROFT surmised, "In effect, the accelerated depreciation cannot just be an incentive to get this thing started; we can almost sell it. ... that becomes something that can lower our cost of capital because of its tax advantages to individual investors."

MR. KOROT agreed with Representative Croft to the extent that the producers don't own the equity in the project. "And we've, in essence, securitized it in the capital markets; that sort of benefit which we pass through to those owners on their pro-rata share basically gets their returns to be lowered based upon the fact that those returns now are sheltered or tax free." The goal is to bring down all of the costs of capital such that the project is at a lower [risk] point.

Number 080

MR. MILIUS reiterated that to some extent there is a first-mover advantage. However, he predicted a very meaningful structural deficit that worsens over time and thus results in tremendous potential for Alaska's project. Mr. Milius announced that he would now discuss how this project would be perceived in the capital markets, the strengths of the project, the risks of the project, and general ideas regarding how the risks could be managed. He opined that this project would be very well received in the capital markets on the equity and the debt side. Industry fundamentals are compelling and robust and many believe those fundamentals are sustainable and will potentially improve. Another positive for this project is the incredible sponsorship this project will have when taken to the capital market. He clarified that the sponsorship refers to the state, all three of the producers, and the pipeline operator. Mr. Milius related the belief that the capital markets will be somewhat route

neutral when viewing this project. In addition to this tremendous stranded gas resource being commercialized and developed, there is the national energy security aspect to this project. Whether the project is a pipeline that moves through Canada or an LNG-oriented project, it will sell well in the capital markets if it's structured appropriately.

MR. KOROT interjected that either of the routes, from a capital market standpoint, can be financed for both the debt and the equity. Certainly, the guarantees and the accelerated depreciation make it more financially attractive while lowering the cost of capital. Mr. Korot related that the ability to structure both in today's marketplace makes them attractive investments for the various classes of investors. Moreover, the ability to start a project relatively soon would be of utmost importance from a capital market standpoint.

Number 137

MR. MILIUS turned to the risks associated with a project the size of the Alaska project. There is some resource and geology risk associated with the North Slope gas reserves, as well as environmental, regulatory, legal, and permitting risks. To a lesser extent there is some political risk. Moreover, there is technology- and facility-related risk related to whatever project is developed. Mr. Milius said that he wanted to focus on the project completion risk and market risk, which will drive the marketability and financeability of the Alaska project. The aforementioned will be the two things on which the rating agencies will focus the most when rating the project. With regard to the construction risk and the completion guarantee, project finance lenders don't typically take construction risk. Usually a completion guarantee from credit worthy parties would be required in order to provide a standby equity commitment to place more money in the project to fund cost overruns. Although it's most likely that the equity holders of the project would provide the completion guarantee, it doesn't necessarily have to be. A completion guarantee is also [required] because the debt holders want to know in a "dooms day" scenario how they would obtain their money back. The potential for federal loan guarantees is very significant, although there is probably a fair amount of details regarding how they exactly work. Preliminarily, Mr. Milius said that the federal loan guarantee will make investors comfortable during the construction period because those investors will receive their money back. However, because only up to 80 percent of the overall cost is being guaranteed, all of the cost overrun risks associated with the

project haven't be underwritten. Therefore, the equity holders or whomever would provide the completion guarantees would bear the cost overruns. The federal loan guarantee has significantly cut the level of risk for whomever bears the completion guarantee. The most logical parties to bear the completion guarantee would be the equity holders, who would likely include the producers.

MR. KOROT clarified that Lehman Brothers' views the pipeline as a transportation mechanism. While it's logical for the producers to be involved in that transportation mechanism to get the assets out of the ground, it isn't the only way to do it. Still, it remains reasonable to assume the producers would participate and their participation has been significantly reduced by the participation of the federal government.

MR. MILIUS reiterated that whomever provides a completion guarantee upfront will expect a disproportionate share of the rewards on the backend. "Those rewards come in the form of ... participating some way in the benefits of this overall project ... when gas prices are above the ... operating costs and capital costs of the project ...," he said.

Number 002

MR. MILIUS informed the committee that there is precedence among gas developments and pipeline financings in which fixed income capital market investors have taken on some of the risk. For example, the Express pipeline done in 1988 had multiple traunches of debt of which some of the more senior traunches of debt were secured by contracts that were taker pay, hell or high water, floor price type contracts. The same pipeline had a more junior traunch of debt in the capital structure in which investors were taking "merchant risk." More recently and more relevant to Alaska's project, Qatar's initial financings back in 1996 and 1997 were all supported by fixed-price contracts with specific off-takers and long-term contracts.

TAPE 04-31A, SIDE A

MR. MILIUS related that the direction that market is moving in and the structure in which it looks to put in place is one in which more of the risk will be borne by the capital market investors around gas prices, which he said is true for a variety of LNG projects around the world. Furthermore, the trend is that LNG contracts are shorter in duration while the spot market for LNG is growing. Mr. Milius opined that the markets are

moving in a direction in which more merchant risk is something the capital projects will be willing to bear around gas projects or LNG projects. A key question that will drive an investor's willingness to take on that risk is regarding where the project fits on the overall global cost curve for gas on a delivered basis to the end markets.

MR. MILIUS turned to the issue of managing the risk and how it would be apportioned among the stakeholders, and related that there are a lot of options. The most obvious option is that the state or federal government would underwrite some floor price for natural gas. However, he said he understood that the federal government isn't interested in the aforementioned for this project. Therefore, he opined that Alaska would also want to avoid that option. Another option would be in which off-takers of the gas would provide a floor, which would be done through a taker-pay contract. In the aforementioned option, the investor would need to closely review the creditworthiness of the off-taker. A third option would be a "collar structure" in which there would be a floor and ceiling price for gas. Under the aforementioned option, the [producers] would approach the off-takers and in turn for a long-term commitment to a price, the producers would be willing to cap the price. Therefore, there would've been some discussion regarding how to structure the risk and whether a government would need to bear some of the risk. Effectively, the risk would be apportioned to the private sector, who would bear it through commercial arrangements through which they shared [the risk]. With gas prices in the $5-$6 range, there is the potential that utilities and municipalities in the Lower 48 would have significant [incentive] to sign long-term contracts with favorable prices. The challenge is that the trend with gas supply contracts has been toward shorter duration. Therefore, the utilities and the municipalities in the US will likely view that as a significant risk for a 20-year contract. The fourth strategy would be one similar to that of the Express pipeline in which there were multiple tiers in the capital structure and each supported by different kinds of contracts with different elements of certainty around gas prices.

MR. MILIUS said that UBS didn't come with all the answers regarding how [a contract] could be structured. However, the issue around gas price risk is one that the capital markets increasingly understand and are willing to bear a meaningful amount of risk around gas prices, provided that the project is reasonably competitive on the cost curve. Furthermore, he opined that there are many potential solutions and routes to be

explored where this risk would be borne among the commercial private sector parties rather than in the public sector.

MR. KOROT opined that the biggest risk is to do nothing because the long-term economic viability of the state and its revenues will be impacted if nothing is done. The risks associated with this project don't jeopardize any of the state's other programs or revenues. The question is how to take an asset in the ground that doesn't have a value and move it to market so that it generates revenues and provides the services in a timely fashion. The window, he opined, isn't open forever. The types of financing one reviews for the Alaska project are bifurcated and structured such that the cost of capital is lowered, but not by increasing the risk on a recourse basis to the state or potentially putting the future programs of the state at risk. Rather, he suggested creating a financeable project that can be split into many segments, including a public-private venture. This is a process done in many industries. Mr. Korot said that it's not Lehman Brothers' job to tell the state what to do, but rather to relate that the capital markets understand that this type of project is feasible and can be done in today's market with relatively attractive overall costs of capital.

ADJOURNMENT

There being no further business before the committees, the Joint Committee on Legislative Budget and Audit and Senate Resources Standing Committee meeting was adjourned at 4:43 p.m.