

Stranded Gas Hearings (0410130930 Minutes)

Alaska Project Discussion, From the Administration:

Governor Frank Murkowski, with supporting testimony by Pedro van Meurs (Dr.), Van Meurs & Associates, October 13, 2004.

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 than 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.

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.

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.

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.

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.

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.

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 affect 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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.