ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON OIL AND GAS
February 8, 2001
10:07 a.m.

MEMBERS PRESENT

Representative Scott Ogan, Chair
Representative Hugh Fate, Vice Chair
Representative Fred Dyson
Representative Mike Chenault
Representative Gretchen Guess
Representative Reggie Joule

MEMBERS ABSENT

Representative Vic Kohring

OTHER LEGISLATORS PRESENT

Representative Joe Green
Representative Jeannette James
Representative Lesil McGuire

COMMITTEE CALENDAR

OVERVIEW: ALASKA GAS PIPELINE PROJECT - BP, PHILLIPS, EXXON

PREVIOUS ACTION

No previous action to record

WITNESS REGISTER

JOE MARUSHACK, Vice President
Arctic North Slope Gas Commercialization
Phillips Alaska, Inc.
(No address provided)
POSITION STATEMENT: Gave an overview of the Alaska Gas Pipeline Project, concentrating on the resource background and the market, and answered questions.

KEN KONRAD, Senior Vice President and Business Unit Leader
BP Exploration (Alaska) Inc.
(No address provided)

POSITION STATEMENT: Gave an overview of the Alaska Gas Pipeline Project, concentrating on the ongoing work effort, and answered questions.

ROBBIE SCHILHAB, Alaska Gas Development Manager
ExxonMobil
(No address provided)
POSITION STATEMENT: Gave an overview of the Alaska Gas Pipeline Project, concentrating on the details regarding permit applications, deliverables, and plans, and answered questions.

ACTION NARRATIVE

TAPE 01-12, SIDE A
Number 0001

CHAIR SCOTT OGAN called the House Special Committee on Oil and Gas meeting to order at 10:07 a.m. Members present at the call to order were Representatives Ogan, Fate, Dyson, Chenault, Guess, and Joule. Chair Ogan also noted the presence of Representatives Green, James, and McGuire.

OVERVIEW: ALASKA GAS PIPELINE PROJECT - BP, PHILLIPS, EXXON

[Contains discussion of HB 83 (Tape 01-12, Side B)]

Number 0034

CHAIR OGAN announced that the committee would hear an overview of the Alaska Gas Pipeline Project. He invited the following presenters to the witness table: Joe Marushack of Phillips Alaska, Inc.; Ken Konrad of BP Exploration (Alaska) Inc.; and Robbie Schilhab of ExxonMobil.

Number 0214

JOE MARUSHACK, Vice President, Arctic North Slope Gas Commercialization, Phillips Alaska, Inc., informed members that he, Mr. Konrad, and Mr. Schilhab represent the Management Committee of the North American Natural Gas Pipeline Group. He paraphrased and elaborated on written testimony as follows:

> We're very enthusiastic about our pipeline project, and we appreciate the opportunity to appear before you today. Each of us will participate in this presentation.

At the outset, let us say that we fully understand and share the strong interest Alaskans and others have in ANS [Alaska North Slope] gas commercialization. An economically viable project would encourage new investment, exploring, and developing North Slope gas. It would provide construction and long-term employment opportunities. It would add state royalty and tax revenues over the long run, and create potential for increased access to gas in Alaska. From a producer aspect, an economic project will provide the value that our shareholders expect from us. We are highly motivated to progress an Alaskan gas project.

Recognizing your interest, the project team plans to provide periodic updates to you on the project status [as] various milestones are reached. The team also plans to engage in ongoing dialogue with appropriate government agencies and other parties.

We believe the evaluation and route-selection process cannot be done in isolation. We want to move a project along most efficiently, and to do so, it must be an inclusive process that provides opportunities for interested parties to participate. This is an Alaskan project, and it's also a project of internationally enormous scale. To be successful, it will require full cooperation of Alaska and its residents, the U.S. federal government, the Canadian federal government, affected provinces, territories, First Nations, and many other interested stakeholders.

At the same time, those participating in the dialogue must be open and realistic. There are many groups with many different viewpoints. To be successful, we must listen and respect these viewpoints. And we must not lose sight of our objective, that objective being a commercially viable gas pipeline that can deliver natural gas from the North Slope to the Lower 48 at costs competitive with other supplies in the U.S. and Canada.

As a joint producer group, we do not have full feasibility cost estimates at this time that address all the technical, permitting, [and] logistics issues of the two pipeline routes, but we are working diligently towards developing that data, and we've committed an outstanding team to this effort.

> We have to consider the costs and [benefits] of both major pipeline routes before selecting one. And, indeed, no prudent investor would commit to a project without first having a firm understanding of the pros, cons, and facts regarding alternatives. Indeed, it is our obligation - and for permitting purposes, a requirement - to evaluate the alternate options with governments, communities, regulators, and our shareholders. We recognize that Alaskans are concerned about the route-selection process, and so are the Canadians. With the huge investment required, we have committed to establishing a factual, unbiased basis for the evaluation.

MR. MARUSHACK directed attention to page 2 of the handout [in committee packets], noting that he would address the resource background and the market; Mr. Konrad would provide an update regarding the ongoing work effort; and Mr. Schilhab would provide details regarding the permit applications, deliverables, and plans. He expressed hope that the overview would provide a clear understanding of the group's plans, the opportunities they see, and the challenges they are working to overcome.

Number 0590

MR. MARUSHACK referred to page 3. He informed listeners that on December 6, 2000, the three major Alaska North Slope producers - BP, ExxonMobil, and Phillips - announced a joint work program to evaluate progress on an Alaskan gas pipeline project. That project would ultimately involve a large-diameter [pipeline system] to deliver gas from the North Slope to Canada and the Lower 48.

MR. MARUSHACK noted that the three producers will share the costs and leadership of the project equally. The initial work program is expected to cost at least $75 million. Staffing levels are anticipated to total 90 full-time-equivalent personnel from the three companies, as well as significant contractor support. The work effort will be primarily managed and staffed in Anchorage, with other work locations in the U.S. and Canada as necessary. By combining the talents of the three producers, Mr. Marushack said they have created a team that brings together "the best of our best."

MR. MARUSHACK reported that the work team has initiated the first steps in "progressing" a project. The program activities

over the next year include conceptual design of the world's largest carbon dioxide treatment plant, and conceptual designs for a large-diameter pipeline with high-efficiency compressors and an NGL [natural gas liquids] recovery system. He noted that details would be discussed later in order to provide a better understanding of the magnitude of the work effort and the facilities being evaluated.

MR. MARUSHACK told listeners that other program activities include project costing, environmental field surveys, permitting requirements and plans, design of a commercial structure, and the overall viability of the project. The focus of the work will be on route evaluation and selection, leading to filings with the U.S. and Canadian regulatory agencies - the Federal Energy Regulatory Commission (FERC) in the U.S., and the National Energy Board (NEB) in Canada. The group's target objective is to file FERC, NEB, and other appropriate applications in late 2001. Mr. Marushack stated:

> This is a very aggressive target. Through the creation of this "all star" team, and by combining the prior work the three companies have done, we are attempting to streamline what is normally a much more time-consuming process, especially when you consider a project of this magnitude. Once the work planning process is finalized, we'll understand the timing better.
>
> Of course, the filings are contingent on developing a commercially viable project that can earn competitive rates of returns with delivery of gas to the U.S. lower-48 states. The latter is especially important since there are potential competing sources of gas that could also supply to these markets.
>
> A competitive project also means that no cost overruns can be tolerated, especially in a gas project of this magnitude, and we'll utilize our company and contract resources to realistically understand all of the costs and risks.

MR. MARUSHACK addressed page 4 of the handout, the first of three graphics that cover North Slope gas resources and the gas market outlook. He noted that it shows the North Slope gas resources and their locations. Developed fields are depicted in green and include, from west to east, Alpine, Kuparuk, Milne Point, Prudhoe Bay, Endicott, and Badami. Major discoveries not

yet developed are in yellow and include Northstar, Liberty, and Point Thomson.

MR. MARUSHACK reported that the known North Slope natural gas resource totals about 35 Tcf (trillion cubic feet). The total potential gas resource on the North Slope has been estimated - over the years, from various sources - to be up to 100 Tcf. He said industry's ability to realize the full potential resource will, in large part, depend on an efficient transportation system that yields attractive netbacks and hence the incentive to explore and develop new prospects.

MR. MARUSHACK pointed out that there is potentially enough gas on the North Slope for projects other than a gas pipeline to Canada and the Lower 48 if market conditions are supportive. He noted that the pie-shaped chart on page 4 shows the relative ANS gas ownership interests for the 35 Tcf of known resource. Through the state's royalty share, he said, it is obvious the state has an important position in the resource.

MR. MARUSHACK referred to page 5 of the handout. He told listeners that gas historically has played a significant role in improving Prudhoe Bay's oil recovery. In the 1970s, an estimated 9.6 billion barrels was originally forecast to be recoverable from Prudhoe Bay. As of today, however, about 10 [billion] barrels has been recovered, with another 3 billion remaining to be produced. This improved recovery is achieved through the help of the world's largest gas processing system. The gas has been, and continues to be, a very valuable resource.

MR. MARUSHACK explained that the image on page 5 shows the reservoir gas being routed through the central gas facility (CGF), where natural gas liquids are extracted, then blended with crude, which is transported down TAPS [Trans-Alaska Pipeline System]. The current NGL production rate of about 50,000 barrels a day goes into TAPS, with the sale of another 25,000 barrels a day to the neighboring Kuparuk oil field for use in its miscible gas enhanced oil recovery project. He noted that miscible injectant is also manufactured at the CGF for use in enhancing oil recovery from the water-filled areas within Prudhoe Bay.

MR. MARUSHACK concluded with page 5, explaining that the remaining dry gas is compressed and reinjected into the Prudhoe gas cap. This reinjection process enhances oil recovery by maintaining reservoir pressure, and it helps vaporize residual oil that is then cycled back and re-produced. The gas resource

at Prudhoe will continue to be used to improve oil recovery "until we are able to export gas from the Slope by whatever means," he said.

MR. MARUSHACK turned attention to page 6. He stated:

> We often get asked why we think the time is now for a more appropriate gas pipeline project from the North Slope to [the] Lower 48. The lower-48 gas market is the largest market in the world, with the best infrastructure system and the ability to move gas from a single hub to many market sectors. It is a sophisticated market that has evolved over time. It's a market where gas can be sold long-term or short-term, priced at spot or fixed. It can float with the general market or [be] locked in using caps and collars.

Number 1101

REPRESENTATIVE DYSON requested clarification about the term "caps and collars" in particular.

MR. MARUSHACK explained that it is a method of reducing risk. Deals regarding gas can perhaps be negotiated either in the market or by making a market. For example, someone may offer to pay a minimum floor price and a maximum floor price, which would "float with spot in between there." He added, "If the price goes above that, whoever you've done this deal with gets to keep that; if it goes below that, they are providing that value back to you."

Number 1192

MR. MARUSHACK returned to his presentation:

> It's a growing market due to the historic abundance of energy and the environmentally friendly aspects of the source. The U.S. Energy Information Agency projected a continuing increase in demand in natural gas through the year 2020. Natural gas demand for the commercial, residential, and industrial sectors increase at a steady and modest rate, as you can see from the graphics.
>
> Demand for power generation, however, is projected to increase from about 11 Bcf [billion cubic feet] a day

> to over 30 Bcf a day between year 2000 and year 2020. Power generation is driving expected growth in the demand, accounting for 64 percent of the total expected demand growth during this 20-year period. Overall, the use of natural gas in the Lower 48 is forecast to grow from about 56 Bcf a day ... to about 86 Bcf a day by year 2020.
>
> Our current view is that 3-5 Bcf a day of North Slope gas could be supplied from Alaska to the Lower 48. We should also point out that there are many supply sources that will [be] competing to meet the projected demand growth. And, in fact, we need multiple new sources to keep supply and demand in relative equilibrium in a market that we want to see grow. Those that are most economical will succeed.
>
> Our gas will [be] competing against Mackenzie delta, eastern Canadian gas, deepwater Gulf gas, coal bed methane, tight sands, and LNG [liquefied natural gas] sources. But we know that existing conventional gas resources cannot keep pace with demand, and we want Alaska's gas to be one of those sources. By "conventional," I mean gas that is normally drilled as we think of, just through normal means, not using any advanced technology, not in any unconventional areas.

MR. MARUSHACK informed members that he would turn the presentation over to Mr. Konrad for a look at the project team's recent early efforts.

Number 1326

KEN KONRAD, Senior Vice President and Business Unit Leader, BP Exploration (Alaska) Inc., began by calling attention to page 7 of the handout, which outlines the organizational structure for the project team. He reported that the three-member Management Committee will lead the day-to-day operation of the project team. There are seven groups consisting of engineering, commercial, environmental, regulatory, legal, and external affairs specialists.

MR. KONRAD noted that the chart on page 7 shows several key leadership positions within the team: team members shown in red are from Phillips; those in green, from BP; and those in blue, from ExxonMobil. Company staff is drawn about equally from all three producers. This allows the project team to access top-

quality people from each organization and will ensure full alignment among the three companies as the work program proceeds. Mr. Konrad said there is a major effort currently to fill the remaining organizational slots. About 50 team members are in place today. He commented, "We're looking to ramp up ... those folks over the next couple of months."

MR. KONRAD turned attention to page 8 and the group's key objectives. First, the group wants to create a project that can succeed, "an economically viable project that is sufficiently robust to attract the billions and billions of dollars of investment that will be required to get gas to market." He pointed out that North American gas prices have spiked during the past year to $5-$10/Mcf, up from historic levels of around $2/Mcf. The duration of the current price spike is impossible to predict, he pointed out, but the laws of supply and demand still exist. An Alaskan gas project needs to look past short-term volatility to the fundamental long-term supply trends and the cost of those competing supplies; he suggested the long-term supply trends would be over 10, 20, 30, or 40 years.

MR. KONRAD reported that a variety of industry studies reveal there is still an enormous gas resource in the U.S. Some of this gas can be economically developed at $2/Mcf, which has been the average price for gas over the past decade. Much of this gas requires higher prices or technological advances to be economic. He emphasized the need to establish Alaskan gas as a competitive source of supply against these alternative sources. Mr. Konrad stated:

> Clearly, we believe Alaska gas can be made competitive. Otherwise, we wouldn't be investing our dollars and our people in this effort. But we do need to be realistic - Alaska is still a long [way] from the market, and our cost challenges are very, very real.
>
> Of course, the real prize for Alaska is not to simply make the known resource base of 35 trillion cubic feet competitive. The larger prize for Alaska is creating a highly efficient and expandable transportation system that yields a high field netback, providing an incentive for investors to explore for and develop new gas fields, incentives to move past 35 trillion cubic feet towards 100 trillion cubic feet and beyond, incentive to create a second industry on the North Slope - an exploration and development industry

centered on gas - and the associated long-term jobs and long-term revenues.

MR. KONRAD continued with page 8, explaining that the second objective is to establish sufficient engineering, commercial, and environmental definitions to support permit applications by year-end of 2001. This is by no means a simple undertaking because it is an aggressive time target; however, it remains the team's goal. He noted that some specific application requirements would be covered later.

MR. KONRAD reported that the third objective, assuming success with the first two, is to prepare for the next phase of activity. Project applications are not an end, he pointed out, but a beginning. A further ramp-up in activity - including advancing engineering design, working through the permitting process itself, and preparing detailed project execution plans - needs to be planned for.

MR. KONRAD turned attention to page 9, informing members that he would speak to the overall scope of the study in four parts. First, nearly all of the gas on the North Slope has a carbon dioxide content above required sales-gas specifications; thus it needs to be treated before the gas can be sold to end consumers. Gas treatment facilities on the North Slope would condition the gas for sale by removing carbon dioxide from the gas stream, compressing the gas, and cooling the gas before it entered the pipeline. He pointed out that these gas treatment facilities would be the largest such facilities ever built, anywhere.

MR. KONRAD addressed the second area of study, a pipeline from the North Slope into northern Alberta, Canada. Two major routes will be engineered and evaluated: a northern route, which runs offshore of northern Alaska to the Mackenzie delta and then up the Mackenzie valley to northern Alberta; and a southern route, which broadly parallels TAPS to Fairbanks and then follows the Alaska Highway into northern Alberta. Mr. Konrad noted that the specific, detailed routing along these two major routes, as well as the termination point in northern Alberta, will be part of the work program.

MR. KONRAD explained that the third area of study will look at pipelines from northern Alberta to end markets in the U.S. Pipeline infrastructure in Alberta has grown over the years, and currently there is some excess capacity in the system; however, many expect that capacity to be fully utilized by the time Alaska gas is ready to come "on stream," as other sources of

supply come on over the next several years. In any event, volumes from an Alaska project will be sufficiently large that some significant expansion of capacity will be required out of Alberta. Mr. Konrad said the joint team will engineer and evaluate new-built pipeline or pipelines from northern Alberta into U.S. markets. At the same time, they will meet with existing pipeline operators to determine whether there are cost-effective expansion opportunities on existing systems.

MR. KONRAD pointed out that in aggregate these two pipeline segments - Alaska to Alberta, and Alberta to the market - represent a pipeline system that is four to five times the length of TAPS. He emphasized the enormity of this undertaking.

MR. KONRAD addressed the fourth area of study. Gas delivered to market will need to meet specifications relating to the heating value of the gas. North Slope gas contains various amounts of ethane, propane, and other gas components commonly called NGLs or natural gas liquids, some of which may need to be removed from North Slope gas in order to meet end-sale specifications. Furthermore, there may be an opportunity to export additional gas liquids to enhance overall project economics.

MR. KONRAD concluded the discussion of page 9 by stating, "We'll be looking at various options for placing NGL facilities along the export system; the location and nature of these facilities will be determined in the study." He noted that he had just provided a broad overview of some of the major facilities that would be associated with a gas pipeline system from the North Slope to Canada and the Lower 48.

MR. KONRAD turned attention to page 10, "Conceptual Pipeline System Components." He reported that the pipeline being considered will utilize the latest technology and be designed to the highest standards. Many things have changed since the major pipeline studies of the 1970s. By leveraging today's technology, a system can be designed from the bottom up that is more cost-effective and yet meets the highest environmental standards, consumes less fuel, and has lower emissions. Pipeline diameter, throughput rates, operating pressure, compressor station design and location, construction methods, and the pipeline termination point all will be re-addressed.

MR. KONRAD offered some general attributes, noting that the work program would determine a specific design. First, the pipeline will be buried along its length, with the temperature carefully controlled so as not to disrupt the permafrost. Unlike TAPS,

therefore, the pipeline will be almost invisible once it is installed. The pipeline would be plus or minus 40 inches in diameter, and would operate at a pressure of perhaps 2,500 psi [pounds/square inch] or more. It would utilize advanced high-strength steel; even so, the steel requirements for this system will be enormous - hundreds of millions of tons. He mentioned that it will be four to five times the length of TAPS, with a pipe-wall thickness of around one inch.

MR. KONRAD told members this efficient pipeline design would require fewer compressor stations, and with today's automation and communication systems, these stations can be built as "not normally manned" facilities. While highly efficient, the total installed horsepower necessary to move gas from Alaska to end markets will still be many, many times the total installed horsepower on TAPS.

MR. KONRAD reported that between compressor stations, there would be block-valve stations as necessary to ensure safe and efficient operability and maintenance. Intermediate "pigging" facilities would enable monitoring of the pipeline with a system of "smart pigs" to ensure long-term safe operations. Mr. Konrad explained that "smart pigs" are devices sent through the pipeline that monitor the pipeline's condition, while it is in operation, without having to look at it with human eyes.

MR. KONRAD turned attention to page 11, "Joint Team Current Status." He specified that there are 50 team members to date, and 90 or so positions are expected to be filled by April 2001. The support of contractors is also needed, and a number of requests for proposals have been issued for various work packages, including front-end engineering design; "costing" for the various scopes of work he described earlier; land and environmental surveys; and legal support, both in the U.S. and Canada. He noted that Mr. Schilhab would address those later.

MR. KONRAD reported that a key current activity is developing in greater detail all the work scopes and objectives for each component of this massive study. He stated:

> This will allow us to identify all the critical past issues which we need to address in order to meet our aggressive time targets. We're in the process of finalizing our near-term work schedule, and are already initiating specific plans for early field surveys, some of which are seasonal in nature and thus are very time-sensitive.

MR. KONRAD turned the presentation over to Mr. Schilhab.

Number 2048

ROBBIE SCHILHAB, Alaska Gas Development Manager, ExxonMobil, offered details regarding the work scope. He began with a look at the FERC application for a certificate of public convenience and necessity, highlighted on pages 12 and 13 of the handout. Noting that the FERC application is "voluminous in detail," he informed members that there is a comparable set of requirements for applications filed with Canada's NEB.

MR. SCHILHAB listed some required information in the FERC application: a description of the legal entity - the owner company - applying for the certificate; descriptions and locations of the pipeline, associated plants, compressor stations, and other facilities; flow diagrams; information on construction and operations management practices; data on the natural gas supply and demand; estimates of facility costs; the method of financing the project; anticipated revenues and expenses; a model and methodology for calculating tariffs; and an analysis of alternative projects that have been considered, which is another reason for the team's efforts in looking at various pipeline options.

MR. SCHILHAB reported that FERC imposes a number of other environmental requirements, shown on page 13 of the handout. He said the application must include a mile-by-mile description of water resources; fish, wildlife, and vegetation; geology; soils; and air quality and noise along the pipeline route. Given the length of the pipeline segments to be evaluated, this requirement potentially means 5,800 different descriptions. Other required reports include socioeconomic impacts of the project; cultural resources that may be impacted; land use, recreation, and esthetics in affected areas; alternatives considered; and project reliability and safety. Thus it will require a massive undertaking to gather, evaluate, and report the information required by FERC. "That's why we're assembling a blue-ribbon group of company and contractor experts to do this work," Mr. Schilhab remarked.

MR. SCHILHAB turned attention to pages 14 and 15 of the handout, noting that these two charts summarize the work program deliverables expected from the various work teams. The result will be used to determine the economic viability of a pipeline

project; if warranted, an evaluation of the gas pipeline routes will follow, as will the FERC and NEB filings just discussed.

MR. SCHILHAB first addressed the technical teams responsible for the design basis and scope for pipeline systems to bring the Alaska North Slope gas to market, including plant and pipeline components for an integrated project, cost estimates, and both a plan and schedules for project implementation. He noted that the technical group will also be responsible for providing some of the information required for application for the regulatory permits just discussed.

MR. SCHILHAB explained that the environmental and regulatory team is responsible for environmental field studies for the northern and southern routes; development of plans for filing permit applications; and the completion of applications to be filed with FERC, NEB, and other agencies.

MR. SCHILHAB reported that the deliverables from the commercial team include a plan to move gas from Alberta, Canada, to the Lower 48; a model and methodology for determining pipeline tariffs; a plan for financing the project; the structure and ownership of the project; and studies to determine the socioeconomic impacts of the project. The group will also provide the commercial elements needed to complete the FERC and NEB applications.

MR. SCHILHAB told members the external affairs team will lead the community consultation group; help to coordinate U.S. and Canadian external affairs activities; facilitate discussions with government agencies and officials and other interested parties; and provide communications support. This group will have a major role in arranging periodic status updates for [legislators], as the Management Committee is doing that day.

MR. SCHILHAB turned attention to page 16, "Major Scopes of Work (RFPs)," noting that the work scope covers great breadth and depth, from the North Slope to Canada and the lower-48 markets, and that a number of qualified contractors will assist. Requests for proposals (RFPs) were issued on January 17 covering ten distinct contract areas, including front-end engineering design for the gas treatment plant; the two pipeline segments mentioned earlier from the natural gas liquids (NGL) plant; environmental and land surveys in Alaska, the Lower 48, and Canada; and the regulatory permitting requirements. He said local Alaska firms were well represented in the bid process. In

addition, legal firms in the U.S. and Canada are being selected through a separate process.

MR. SCHILHAB reported that on January 25, a pre-bid conference was held to brief potential contractors on the initial work being planned and criteria to be used in awarding the contracts. Team members have also begun interviewing contractors who will be submitting bids, to assess their qualifications.

MR. SCHILHAB noted that the timing of contract awards will vary, based on the size and complexity of the individual packages and the ability to conclude contract negotiations. [The team] is currently reviewing bid submissions, and anticipates that successful bidders will begin work before the end of the first quarter of this year.

MR. SCHILHAB said each group is currently planning its work program. This includes identifying its deliverable produce, when the work needs to be done, and what information will be needed to support the other groups. The various teams are also identifying critical issues that will affect their work and that of the entire project, and options for addressing these. All of this information will then be integrated into a detailed work schedule and will help guide the team's efforts toward contractor support during the months ahead.

MR. SCHILHAB addressed the final chart, page 17, "Near Term Plan," which read: "Continue to build team; Finalize work scope; Define work schedule; Execute contracts." He noted that by April, contract people are expected to number about 90, with additional support provided by the firms awarded the various contracts. There will be additional efforts to determine in greater detail the work scope and end products for each group and for the overall project team. [The group] doesn't currently have definitive milestones for completion of the many project components. As mentioned earlier, this is a critical element which the project team will be working on in the near term. He reported that the team expects to execute most, if not all, of the initial contracts over the next two months, although the exact timing will vary, based on the size and complexity of the individual packages.

MR. SCHILHAB summarized some key points made that day. First, the three major North Slope producers have agreed to a work program to evaluate and progress a North American natural gas pipeline project that could ultimately culminate in the construction of a large-diameter pipeline system to deliver gas

from Alaska's North Slope to Canada and the Lower 48. They are fully engaged in this effort now.

MR. SCHILHAB said second, an Alaska natural gas project can deliver cost-competitive natural gas to consumers and play an important role in meeting the nation's energy needs, while providing substantial economic benefits to Alaska's leaseholders and others. Third, no option should be precluded at this point. It is important that all parties understand the costs and benefits associated with the various options. Much of the information to be generated and analyzed is also needed to complete applications for FERC and NEB permits. On behalf of the team, he urged the legislature to allow this critical work to be completed and not preclude any development options. It is in the best interests of the state and everyone else to have a full understanding of how to best proceed, he told members.

MR. SCHILHAB said finally, given the strong interest in this project, the project team plans to provide periodic updates [to the legislature] as various milestones are reached, and to engage in an ongoing, meaningful dialogue with government agencies and other interested parties.

Number 2566

CHAIR OGAN invited committee members to ask questions.

REPRESENTATIVE FATE noted that the team had referred to a study of a transportation system from Alberta, Canada, to the Lower 48. He expressed his understanding that gas is going through the "prebuild," which is near capacity now, which was part of the Alaska Natural Gas Transportation System (ANGTS) formed in the mid-to-late 1970s. He inquired whether the plan is to add capacity to the "prebuild" or to put a new pipeline from Caroline, Alberta, to the Lower 48. He said there is an anticipation of a volume of 1.5 billion [cubic feet] just from the Mackenzie delta, let alone from Prudhoe Bay in Alaska.

MR. KONRAD agreed the existing prebuilt segments are at or near capacity. With Alaska volumes coming to Alberta, there will need to be more capacity built to get the gas to market. The team would look at all options, including building a new pipeline into those markets. That creates an opportunity, he noted, because the same technology and cost advances made on the pipeline - described earlier - may offer an opportunity to transport gas from Alberta at a cost lower than what was possible under the old technology. "Nevertheless, we will be

talking to all the pipeline operators in Alberta around what expansion options they have ... on their system, and see if there's ... cost-efficient expansion opportunities with them," he added.

MR. KONRAD emphasized that although the team would look at all options, part of the work study would be to design new pipeline into the North American market. If there are other, more cost-effective ways to do it - which would benefit the interests of the state, in the form of royalties, and the producers - "we will do that," he said, adding that it is about finding the best solution.

Number 2703

REPRESENTATIVE FATE followed up by asking whether those endeavors will come under the ANGTS plan, as was the prebuilt section, or will be independent of that plan and the Alaska Natural Gas Transportation Act [of 1976] (ANGTA) also.

MR. KONRAD answered that the studies will be independent; how the team actually goes forward with regard to permitting will be part of the work program. The technical work needs to be done, and it will underlie whatever applications go in to the regulators.

Number 2740

CHAIR OGAN recognized the presence of former Representative Mark Hanley.

REPRESENTATIVE JAMES inquired about the group's focus, saying it appears the focus now is simply on taking North Slope gas to the Lower 48 via pipeline, without including review of any LNG potential in Alaska.

MR. MARUSHACK responded that the group before the committee today has been put together to look at a pipeline option only, looking at both routes. However, each company separately has looked at GTL or LNG. Furthermore, BP, Phillips, Marubeni Corporation, and Foothills Pipe Lines are part of what is called the LNG sponsor group, put in place about two years ago to evaluate the opportunity for LNG; that sponsor group - which has spent $12 million, has done a lot of good studies, and has a lot of good data - is in phase 2 now, looking into the feasibility of piggybacking off a potential southern route for an LNG system; however, the sponsor group doesn't have an economic

project "because they've got the burden of an 800-mile pipeline in front of them, so they're seeing if there's any synergies that will allow that to happen."

Number 2839

REPRESENTATIVE JAMES said the group's plans seems to be "taking on the cost and effectiveness and procedure" of the entire project, yet other people are proposing the ownership and management of a pipeline. Although that isn't necessarily mutually exclusive, it appears [the group] is trying to determine the actual cost and the best route to get there, and that if sometime during the process it seems to be better to have someone else do it, that would be an option. She asked whether that is correct.

MR. KONRAD replied in the affirmative.

REPRESENTATIVE JAMES, noting that the proposed pipeline would be underground, surmised that there would be a provision for access to the pipe, and that the group would have identified where that access would be required. She noted that some new access point may be needed, however, and asked how difficult that would be.

MR. KONRAD answered that it wouldn't be terribly difficult.

Number 2947

REPRESENTATIVE DYSON noted that Alaskans have a pretty good idea of the permafrost distribution, for example. He asked whether that is true for the Canadians as well.

MR. KONRAD said yes.

MR. SCHILHAB added that the Canadians have built several pipelines in the area, in the Northwest Territories. He stated the belief that some of that information ...

TAPE 01-12, SIDE B

... could be used, such as the new technology.

AN UNIDENTIFIED SPEAKER added that for both routes, there are areas of "permafrost-permafrost" and areas of intermittent permafrost. As Ms. Schilhab said, there is already an oil pipeline, the Norman Wells (ph) Pipeline, which runs two-thirds of the way down the Mackenzie River valley. He stated the

belief that [the group] believes it has a pretty good handle on the permafrost areas within Alaska. The study will be going into increasing detail, but the group believes it to be well within the realm of its current capability. "It's all about keeping the temperature of the line close to the temperature in the ground," he explained. "And we're pretty confident we can do that."

Number 2927

REPRESENTATIVE DYSON asked what part the provinces, as opposed to the Canadian federal government, play in the permitting process.

MR. MARUSHACK answered that they play a very important part, and need to be involved in the process. It is very much like the situation in Alaska. They have stakeholders and stakeholders' interests, and both the Northwest Territories and the Yukon Territory want the pipeline to come through their areas. "We are going to have permitting processes in place with them," he said. "We are going to have to have discussions with them. It's very important."

REPRESENTATIVE DYSON asked whether, in the Canadian system, the federal or the provincial [agencies] have the final say on permits.

MR. MARUSHACK answered that lots of individual agencies will have a say in the process, and he isn't sure whether any one has absolute veto power. He added:

> We will have to go to Ottawa. We'll have to work with the federal government, with the NEB. We will also have to work with the provinces and the First Nations. So I'm not sure I can give you an absolute answer. I think everyone is going to have a part in the permitting process.

REPRESENTATIVE DYSON said his sense is that in Canada the federal government is far more preeminent than the provinces, especially the western ones, in this regard. He suggested the federal government would be a major hurdle in Canada.

MR. MARUSHACK agreed that clearly permits would be needed from the NEB, which is a federal [Canadian] agency. But the group will also have to get permits from, and work with, people all along the routes.

CHAIR OGAN announced that listening on teleconference were Greg Kamaramie, Director of Oil and Gas Business Development, Yukon Territory; and Scott Ken, Member, Yukon Territory Legislature. He suggested that perhaps they could respond to Representative Dyson regarding his questions.

Number 2760

REPRESENTATIVE GREEN said it is no question that most Alaskans, including the governor, favor the highway route. It is also obvious that there are benefits which directly affect the people by bifurcating [the pipeline] into three different modules; that would fairly well be excluded by a single northern route. He acknowledged, however, that economics will drive the direction. He noted that there is a proposal for 48-inch pipe approximately an inch thick, and that gas is compressible; he asked whether that limit is driven by extraction, the market, or technology. He also asked whether the excessive pressure that would be required would be a problem "downstream" if the pipeline tied into other [existing] pipelines.

Number 2694

MR. SCHILHAB answered that first, it is approximately a 48-inch pipeline. [The group] hasn't finalized a design or selection of the pipeline size. Over the near term, the group will be working with the reservoir engineering group to understand what the range is for the gas "off-take" that the group should be looking at. "We've already done a lot of work in that area," he added. He said that if it is a 48-inch pipeline, for example, the expandability of a pipeline for the future allows a pretty good range, almost a 50 percent expansion capability. As for Representative Green's questions regarding size and volume, he emphasized that [the group] hasn't selected the optimum off-take, although members have a sense of about what that is, for a starting point going into the conceptual design.

Number 2624

REPRESENTATIVE GREEN referred to the Alaska Gasline Port Authority, which had addressed the committee previously, talking about "upfront ownership" and whether the state might want to be involved. He asked whether this will be like the oil pipeline, a common carrier owned by many owners, or will be exclusively owned by "the three owners" and be an "upfront, different type

of pipeline" whereby only limited entities would have access to subsequent development or exploration.

MR. KONRAD answered that certainly "the pipeline system that we envision" will be a regulated pipeline. He added that the regulators typically regulate tolls and accessibility. As for ownership, [the group] is trying to design the best project: the lowest-cost and most efficient one, "because it matches between the market and the field." He noted that Mr. Schilhab had alluded to the fact that ownership and structure of the project will be part of the work activity through this year. If, indeed, [the group] finds that other pipeline companies or other investors can add value to the project or are interested in helping to finance it, Mr. Konrad said, "that will be an active part of our work program." He added that it is by no means a foregone conclusion that the three producers would be the only owners of the line.

MR. KONRAD cited the recent "Alliance pipeline" as a possible example. Initially, producers got together to design a project that was right for them - efficient, low-cost, and with the right rate capacity, for example. Once that was in place, the producers shifted out of the project, over time; now, there are no producers in that pipeline project, the biggest gas project in North America in recent history. He emphasized that there are many options that [the group] will be looking at.

Number 2488

REPRESENTATIVE GREEN asked how far-reaching "regulated" is.

MR. KONRAD responded that there will be an open season, and then "folks will have the opportunity to nominate to that pipeline." Gas pipelines are normally "contract carriage," but that will be part of the discussions with regulators in terms of the specifics. Gas pipelines are typically slightly different from oil pipelines, he noted.

Number 2455

REPRESENTATIVE GREEN asked what would happen for [a producer] with a future discovery, and whether that would require building a second [gas] pipeline, for example. He expressed concern about exclusion.

MR. KONRAD answered that expanding the capacity of the pipeline is good because it will lower the unit costs for everyone

shipping through the line, just as with TAPS. There is a strong incentive, as Mr. Schilhab had said, to build a system that is expandable in terms of capacity; he indicated it is the group's vision that the project will create enough incentive for people to explore, which would benefit everyone.

REPRESENTATIVE GREEN asked whether the answer is, then, that [the proposed gas pipeline] would be accessible by everybody.

MR. KONRAD responded, "Through the regulatory process. ... Through the FERC and through the National Energy Board."

REPRESENTATIVE GREEN asked whether nothing will prevent that [access] other than some regulatory process. He said normally the [legislature] is concerned about the ability for future discoveries to [have access to the pipeline]. He asked whether he was hearing correctly that it isn't going to be a problem.

MR. KONRAD answered that it will be just like every other regulated gas pipeline in North America and will have similar ...

Number 2360

REPRESENTATIVE GREEN interjected to note that Mr. Konrad had said most gas pipelines are "upfront ownership" and are not necessarily common carriers. He asked whether this will be like that, or will be - as he himself hopes - expandable, because it is compressible gas, so more [gas] can be carried if a field is discovered ten years from now; it would be regulated, yes, but without gas being excluded because it wasn't [discovered] ten years earlier.

MR. SCHILHAB explained that when he was talking about expandability, it [involved] going through the regulatory process. As Mr. Konrad mentioned, on a regulated pipeline like this, "the first thing you do is you go out ... for an open season, to find out ... who is interested, and then sign that up, and then design the pipeline based ... on the need at the time." That pipeline would be designed with future expandability in mind, Mr. Schilhab said, either through adding compression or doing other things down the road. If there is a fortunate situation in which gas is flowing and new discoveries are made, development will take awhile; those individuals will find a way to get their gas to market. He said:

> That's the beauty of actually having a conduit from the North Slope into the marketplace. You go through a process of expanding, through a regulatory process, if you need to expand it; or if you have gas declining that's already going through that pipeline, there may be room in that pipeline by the time development comes on.

Number 2258

REPRESENTATIVE GREEN said he had big concerns about the answers he was receiving, but wouldn't pursue it further.

CHAIR OGAN, referring to the open season and likening it to hunting, asked: Once the season is closed, if people weren't there for the season and didn't get the tag, but came up with a project "in their sights," would they be considered poachers? If a company identifies a market and is willing to build a spur [line] to tidewater to export LNG to the Pacific Rim, for example, when does the season close? Can there be an extended season if there is a lot of "quarry" out there?

Number 2198

MR. MARUSHACK offered an example. If there is 4 Bcf [proposed to be] coming down the line, the pipeline can be designed for that. If there is a good discovery later, access [into the pipeline] will be desired. There would be a nomination process in which [the producer] would say, "We have this huge discovery; we would like to have a Bcf ... of capacity in this pipeline." He noted that expandability capability sometimes means compression must be added - or "looping," if there is a huge discovery - or else the tariffs may have to be adjusted. That is why [the group] cannot respond with absolutes. All these things are possible, and are opportunities through the nomination process, in the regulatory process. In response to a question by Representative Green as to whether that includes the future, he answered affirmatively.

Number 2120

CHAIR OGAN said he himself was not talking about discovery, but about somebody who might not have gas, and yet has the market and wants to invest in a pipeline and "tap on to what you've got there." He asked whether the season would be closed for such a person. He noted that HB 83 embodies the principle of needing

to build the capacity into the pipeline to start with, for future uses. He asked: "When do they have a season?"

MR. KONRAD replied that if there is a better market for the gas, producers will obviously be motivated to tap it.

CHAIR OGAN suggested there are economies of scale, however, once there is a pipeline going a certain distance. He asked whether [the group] believes it is appropriate for the state to mandate that there be enough volume prebuilt into the line - "to a 'Y' concept or a 'hub' concept" - for future uses. He surmised that the law could be written as desired, and the regulations then made to match it, but said he would like a commitment from "you folks" of willingness to sell the gas to somebody who is willing to invest in something that [the group] perhaps isn't interested in. He mentioned the history of oil development, saying smaller companies come in and do things that the big companies might not see as economic or in their interest. More motivated small companies might take risks that larger entities wouldn't, and sometimes do pretty well with it.

MR. KONRAD responded that if there is an economic opportunity, then it will happen. Markets create opportunities and investments. "What we're saying is physically the line itself will be able to be expanded," he added. "And if there's a more attractive economic opportunity, that opportunity will be sought out."

Number 2006

CHAIR OGAN asked to what capacity it can be expanded.

MR. KONRAD answered, "We haven't designed the line yet. As [Mr. Schilhab] said, something like 50 percent would be conventional, which, if it was a 4-Bcf-a-day pipeline, that would be enormous by most any standard."

CHAIR OGAN commented that Foothills [Pipe Lines Ltd.] had testified that 4 "and change" Bcf is about as big as can be done with today's technology. With a 4-Bcf line to the Lower 48, Chair Ogan said, he didn't see how there would be extra capacity.

MR. KONRAD replied, "I think we certainly have built some of the largest pipeline systems around this planet, and we feel that we can design a system that is capable of more than 4 billion cubic feet a day."

REPRESENTATIVE FATE recalled hearing from [the group's] presentation before the Senate Resources Standing Committee that "you could go from 4 to 6 Bcf."

MR. KONRAD responded that that would be a 50 percent increase over 4 [Bcf].

Number 1943

REPRESENTATIVE DYSON pointed out that "looping" means using short sections of parallel pipe. He said with 6 Bcf, it is getting close to the "yield point" of the pipe. He asked whether that is the limiting factor.

MR. KONRAD answered:

> The limiting factor becomes how much compression you need to put in. And ultimately, if you're burning all your fuel to compress the gas, at some point in time that becomes ... subeconomic. But a 50 percent increase, like [Mr. Schilhab] indicated, would be easy. If you needed more than that, then a pipeline's economic again. A 2-billion-cubic-feet-a-day pipeline's an enormous pipeline, and that's economic. Or if you want to go from 4 to 8 [Bcf], ... that would be an economic undertaking as well.

REPRESENTATIVE DYSON asked whether the limit, then, is the fuel for the compression, not the yield strength of the pipe.

MR. KONRAD answered:

> You don't want to build compression stations every three miles. ... It's the cost of the compression, and then the associated fuel use ... normally, at some point, becomes the limiting factor. And that's when you get into looping lines and expanding that way.

Number 1876

REPRESENTATIVE JAMES said she was hearing from testimony that although [the group] is doing this work, it doesn't necessarily preclude that there might be "a separate owner of the gas line and operation of the gas line" when it gets to that point. She cited Foothills [Pipe Lines Ltd.] as an example. Referring to Representative Green's question, she asked: What is the danger,

when we get to the end, that you decide that you're going to own the pipeline yourselves? Do we have any protection from that? And at what stage should [the state] be worried about that?

MR. MARUSHACK answered that the reason there are three companies coming together is they are trying to evaluate whether there is a "baseline economic project." The companies want to sell gas. He stated:

> Now, once we have that, we're going to be looking at other companies - anybody who can bring value into the process, lower our costs, ... maybe Foothills, maybe Williams. Lots of companies are out there that would like in to the process. We're talking to all of them ... because some people may be able to bring value and lower the cost and raise the wellhead [price]. ... We don't have a time, at this point in time, when we're actually going to go out and solicit other people coming into this process. That's part of ... the work. But people who can bring value into this thing and lower our cost, ... we like that.

Number 1706

REPRESENTATIVE JAMES said she appreciated that comment. She asked, however, whether return on investment [isn't also a factor]. She suggested it would be to [the group's] advantage to get other investors besides [the three companies], "so you can do what you do best, and that's find gas and sell it."

Number 1670

MR. MARUSHACK replied affirmatively, saying it is the same as for financing: "After you know you have a good project, you look at financing so you're not putting all your equity in that, so you can drill additional wells."

CHAIR OGAN asked whether Mr. Marushack was speaking for the group or for Phillips with regard to that last question.

MR. MARUSHACK answered that he was talking generally about how these things happen.

Number 1656

MR. KONRAD added:

> The producers have the same interest as the State of Alaska in this particular instance. We want the most efficient, lowest-cost system that will maximum the state's royalty and severance tax. Pipeline companies in isolation sometimes may have slightly different motivations. But we should be quite clear that we are very aligned with the state at this stage in the project, and I would think the state should be quite pleased that it's the producers taking on the lead on this ... to make sure that we do build as ... efficient [a] system as possible.

REPRESENTATIVE JAMES commented that so far [the legislators] have that faith.

Number 1609

REPRESENTATIVE DYSON said he believes Alaskans have an additional interest besides the royalties, which is the utility of being able to use natural gas, particularly in the Interior. He recognized that it may not be a concurrent interest of the producers. There may be more profit in it for [the producers] to ship the gas to the Midwest, for example, than to provide it to the middle parts of Alaska. He added:

> If we pressure you, through whatever processes, to make gas available ... in the Interior of Alaska or up and down the Yukon or Southeast or wherever, clearly we have a responsibility to assist you in the additional costs or add incentives, so that you don't pay a penalty for serving a public interest that may not be your profit-driven company interest. But there's the one point that our interests may diverge, and clearly we are trying to represent the people of Alaska [who] have an interest to see that ... at least that gets considered in the equation. And I suspect we'll do that somewhat clumsily, but we want to do it in a say it's not a "deal killer" and [doesn't inhibit] the process of getting the ... project going forward and being very economic.

MR. KONRAD responded:

> We, as a group, have heard loud and clear Alaska's desire for access to gas. And as we look at both routes, we're looking at ways we can achieve that, ... be it a northern route or be it a southern route. So,

> I think we have taken the issue onboard. I can't say we have every answer. But it's quite definitely going to be part of our work program to be able to address those things ... with Alaska and with other communities in Canada.

Number 1472

REPRESENTATIVE FATE pointed out that the [written] presentation talks about a prize and creating a highly efficient and expandable transportation system, and talks about the things required, such as engineering and environmental assessment, to support a permit application process. He stated his understanding that there is already a system in place - ANGTS - that designates not only the route; he indicated the federal Alaska Natural Gas Transportation Act [of 1976] (ANGTA) involved international treaties and addresses FERC certification and permitting on what is basically the TAPS route.

REPRESENTATIVE FATE asked whether the northern route has the same degree of permitting, or whether [the group] would have to start from scratch there. Noting that the three companies may not have the permits [for the southern route], he said somebody does, and suggested the group would be in negotiations or discussions with those people. He asked whether it wouldn't be much more costly, therefore, to even anticipate starting from zero on the northern route.

Number 1352

MR. KONRAD answered:

> In terms of engineering, we are redesigning the entire system. So all the work we're doing this year, in terms of designing a new system for either route, would need to be part of that application. So whether it's done under ... the existing ANGTA process or if it's done under the natural gas Act, all the data and engineering and environmental work we're doing would need to be ... part of that.
>
> Once we design the best system we can and design the optimal project, then we'll be looking at the best process to do that, and see whether it's best to modify the historic agreements or ... take another path. [All] we want is the best project, and then, as

we go through the year, we'll determine the best process.

Number 1295

MR. SCHILHAB added:

I think you're correct in what you have stated. ... There were permits back in 1977 that were approved, and those exist today. ... Also, ... there wasn't a pipeline built back then because it wasn't economic. What we're about, really, is to determine if now things have changed enough ... to have an economic project. So we are looking and we're exploring the prize that you mentioned in the words there at the beginning: ... Where is ... an economic project? How is the best way we can find the lowest-cost, most efficient project, so that we can have a pipeline project ....

Once we get in and do the engineering that [Mr. Konrad's] talking about, then we'll look at what's ... the right permitting process. It may be that there is a very streamlined process that's already in place that we can utilize, but we have to utilize that if that's an economic project. ... Our first order of business is to determine if we have an economic project. As we're going through that, we're looking at several options to ... determine which one is the most economic.

Number 1203

REPRESENTATIVE JOULE inquired about support by the Northwest Territories and the Yukon Territory and whether that support is from the governments and includes all of the First Nations people.

MR. MARUSHACK replied:

First of all, the information we have generally - and perhaps the provinces are better to speak on this - ... is that the southern route is generally favored by the Yukon Territory; the northern route is generally favored by the Northwest Territories. And [in] the Northwest Territories ... is an organization ... that is actively promoting and wants to be involved in the

> process to bring that pipeline down through ... the north, through the First Nations; ... it would go across their land. We would have to negotiate across First Nations land, so they would be very much involved in the process, as would happen [with] First Nations in the Yukon area, also, on the [southern route].

Number 1110

REPRESENTATIVE JOULE asked whether any of the First Nations groups oppose having the pipeline go over the northern route.

MR. MARUSHACK answered, "I personally do not know that there are." He asked whether others of the group knew.

MR. KONRAD, in answer to Representative Joule's question, said:

> Not to my knowledge. The First Nations have all said ... in the Northwest Territories that they are quite interested in the project. The First Nations along the southern route are perhaps at this point in time, because they have land claims issues that haven't been fully settled, ... are a little bit more ambivalent or sitting back, waiting, whereas the northern are very proactive.

MR. SCHILHAB added:

> We have made some high-level contacts in the Northwest Territories and Yukon Territory. We have not yet gone out and sat down with ... all the aboriginal groups, the First Nation groups, to understand their needs and their desires. ... We talked about the external affairs group, the groups that we've got; that's part of the work scope ... that we'll be doing soon, is making those contacts [to determine] their needs and their desires.

REPRESENTATIVE DYSON suggested perhaps the people listening in from the Yukon Territory might have something to say about it.

CHAIR OGAN mentioned that they could be scheduled for a hearing in order to bring those issues up.

Number 0973

CHAIR OGAN offered a handout containing sections of the state constitution, with Article VIII, Sections 1 and 2, highlighted on the first page; he read those sections. He said it is not the responsibility of the executive branch to manage the resources, but rather to carry out the policy set by the legislature. He pointed out that the organizational chart presented at the Senate hearing hadn't included the legislature. He expressed hope that the legislature would be considered part of the organization for these deliberations.

CHAIR OGAN referred to Mr. Konrad's comment that the producers have the same interest as the state. He said he didn't want to minimize the fiduciary responsibility to a company's stockholders, which is a completely appropriate relationship, but said the legislature has a fiduciary responsibility to the "stockholders" as well. He suggested the common denominator is the desire to commercial the gas.

CHAIR OGAN mentioned a question the previous day about whether any internal conflicts may prevent or inhibit development of the gas. Mr. Marushack had answered that to his satisfaction, saying Phillips doesn't have any because Phillips has been in the LNG business for a long time. However, Chair Ogan said, he hadn't heard anything from either Mr. Konrad or Mr. Schilhab that satisfied that question for him. He said to Mr. Konrad:

> Sir John Brown recently announced an additional capital commitment to the Irian Jaya project ..., approximately $2 billion. What's BP's rationale in supporting a capital expenditure to commercial natural gas reserves in a foreign country, rather than ANS gas?

Number 0738

MR. KONRAD answered, "We're commercializing oil and gas all over the world. That project ... is in no conflict at all with what ... we're talking to you here today about."

CHAIR OGAN said he differs with the statement that the producers and the state have the same interest. He said a number of people in the state have an interest in looking at other markets. He noted that LNG is being shipped to the East Coast now.

MR. KONRAD said there are four [facilities] built - one is operating and the other three are in various stages of being mothballed or coming online.

CHAIR OGAN said it the East Coast isn't having the same energy crisis as that on the West Coast. He suggested the state might have an interest in piggybacking an LNG project on to this pipeline coming south. He said there is a conflict in his mind.

MR. KONRAD replied that if LNG adds to the value and gives a higher wellhead price on the North Slope, "we're going to be 1000 percent behind it." He explained:

> Good projects get funded in BP, and ... if you find a good project in BP that's not getting funded, you could talk to John Brown and he'll probably fire the guy that's responsible for that, because we're a big company, we're growing, and we've said quite clearly our aspiration is growth. At this point in time, we're funding ... aggressively, and good projects get funded, period.

Number 0583

CHAIR OGAN stated his understanding that the Alaska [Gasline Port] Authority (AGPA) had offered in writing to purchase ANS natural gas from BP, but that [BP] hadn't accepted that offer or made counteroffers. He asked Mr. Konrad about it.

MR. KONRAD replied that the AGPA didn't make formal offers, but had put forward "some notional thoughts which are, in our mind, no way, shape, or form nearly competitive with the project we're talking to you about today." He added, "They're still maturing their project, just as ... we're still maturing our efforts around LNG through the gas sponsor group. So we're certainly leaving no rock unturned; we're looking at all the options."

CHAIR OGAN asked whether Indonesian law penalizes or jeopardizes a concessionaire for delays in bringing natural gas reserves into production.

MR. KONRAD answered that he isn't familiar with the specifics regarding Indonesian law, although he is familiar with a number of projects that "folks are trying to progress there."

CHAIR OGAN asked that Mr. Konrad get back with him regarding that, indicating he'd have further questions. He then asked whether BP is looking at a GTL project on the Kenai Peninsula.

MR. KONRAD answered yes, specifying that BP is building a demonstrating in Nikiski "to demonstrate what we think is a breakthrough in terms of gas-to-liquids technology." He added:

> My business is responsible for ... constructing that plant and making it ... work, to demonstrate the technology; and parallel with that, ... as we're also looking at LNG, ... we're looking at the possibility of a commercial-scale operation on the North Slope that currently does not appear to be competitive with the project we're talking to you about today. And we're also supporting ... BP's global activity around gas-to-liquids. We're kind of a center of expertise around gas-to-liquids, and we're supporting our other businesses around the world for them looking at commercial-scale opportunities as well. So ... rather than exporting natural resources, we're actually exporting brainpower from Alaska, which is [an] interesting twist.

Number 0333

CHAIR OGAN referred to previous committee meetings, noting discussion about Cook Inlet gas supplies, with estimates ranging from 7 to 9 years, from various people, or up to 12 years, from the DNR [Department of Natural Resources]. He said it is on record that 98 percent of the gas found in Cook Inlet was during the 1960s. Chair Ogan explained that he is looking at BP's rationale for a GTL plant in the Kenai area, given the limited known gas supplies. He surmised BP would keep its plant going once it is operating, since it would cost $100 million.

MR. KONRAD answered that the GTL unit in Nikiski is a demonstration unit, not a commercial unit. It will consume about 3 million cubic feet a day, a relatively small volume, for "X" number of years. He added:

> We don't see that ... as a permanent operation; it's there to demonstrate the technology and to further refine the technology, and then apply that technology for an actual commercial plant either on the North Slope or anywhere else around the world where we have ... major stranded gas assets.

CHAIR OGAN asked whether there is a gas balancing agreement among the major players on the North Slope.

MR. KONRAD answered:

> We don't at this point in time. Gas balancing agreements are quite conventional in basically every gas field ... in the U.S. or in North America. Once we have a project kind of scoped out and we know exactly what the attributes of that project [are], then all the owners in the major units on the North Slope will be putting those agreements in place, [when] we understanding the scope.
>
> I would say that in terms of minor gas sales, there [have] been minor gas sales out of all the fields, including Prudhoe Bay, over time, and we've been able to do that ... in a quite straightforward fashion. For instance, right now ... BP is taking gas from Prudhoe Bay to use in the Northstar enhanced oil recovery project, to allow higher recoveries at Northstar.
>
> So those will be put in place once we ... have a real project that's defined and we understand what ... specific needs for those agreements will be necessary.

Number 0068

CHAIR OGAN asked whether the lack of a gas balancing agreement gives one producer veto power over the other two.

MR. KONRAD answered:

> Well, we're all here together today. ... Gas balancing agreements are quite routine, and once we have a project that we're agreed on, I think we'll have a gas balancing agreement in place. That's standard industry practice.

MR. KONRAD, in reply to Chair Ogan's reiteration of the question, stated, "No. As I said earlier, there [are] individual producers taking gas out of Prudhoe Bay today, BP being one of them."

TAPE 01-13, SIDE A

Number 0001

CHAIR OGAN posed a scenario in which two producers want to use the southern route [and one wants the northern route], but there is no gas balancing agreement. He asked whether that allows de facto veto power through refusing to sign the agreement, which he understood to be necessary in order to have a project.

MR. SCHILHAB replied:

> It would be good business to have a gas balancing agreement once we had a major gas sale coming off the North Slope. And as [Mr. Konrad] mentioned, we all have gas sales right now to Deadhorse or various small gas sales that are going on today, ... and we don't have a gas balance agreement but we maintain a balance. ... And at some point in time ... we would balance that.
>
> Now, I'm not able to answer your question specifically, because I don't know from the Prudhoe Bay operating agreement or the unit agreement whether ... not having a gas balancing agreement ... would enable one to block a major gas sale over the other.

MR. SCHILHAB added that once [the group] sees a project that would be viable, a gas balancing agreement is just one more of the thousand tasks to do, as part of the work scope.

Number 0197

CHAIR OGAN stated:

> Let's talk hypothetically. Your board of directors is ... adamant about developing Mackenzie gas; these guys see things a little bit differently. I mean, you have to have an agreement to be able to pipe the gas down the pipeline and have this project. ... I'm not really hearing an answer. It seems to me that if you don't have an agreement, then ... it gives one of you a hammer over the other two, ... whoever's interests those are. And although I appreciate you're all working together on this and that the companies all come together, ... there are conflicting interests, even within your group. ... You've got gas at Mackenzie; they don't.

MR. SCHILHAB replied that he doesn't see that as any kind of conflict "within what we're doing." He added, "What we're about is to look, to see how we can get a project that's economic to get North Slope gas to the marketplace." In response to a further suggestion by Chair Ogan that there is a conflict on route selection, Mr. Schilhab said:

> Well, no. ... If we have a stand-alone project off of Prudhoe Bay, then that would be a project that would stand on its own merit. Mackenzie valley is looking at a ... comparable gas pipeline project, but that's going to stand on its own merit. ...
>
> If we get into a [situation] where we, together, find that we have an economic project or a project that's viable, then I think it's only good business and it makes good sense and we're going to be required ... by you and others to look at the synergies, to see if there's any improvement that we can do ... to enhance that project.

Number 0364

CHAIR OGAN responded that by lack of a direct answer to his question, he would assume, until shown otherwise, that lack of a gas balancing agreement basically gives one of the producers veto power over the others.

MR. SCHILHAB apologized, saying he is sure it is probably addressed by the gas balancing agreement, but he is not up to speed on that aspect.

Number 0415

REPRESENTATIVE McGUIRE referred to mention that the group is in the process of selecting qualified contractors. She asked what percentage of those selected thus far in the ten distinct areas are Alaskan companies,

AN UNIDENTIFIED SPEAKER answered that they hadn't selected any companies yet. He offered to provide more information the next time [the group] was before the committee. He added, "Clearly, the Alaskan companies have responded to our bids."

Number 0497

CHAIR OGAN said ExxonMobil has made substantial capital commitments in LNG projects in Yemen, Qatar, Natuna, and Sakhalin; he surmised that the company would target the Asian market there. He requested the company's rationale in supporting these expenditures to commercialize gas reserves in foreign countries, rather than commercializing LNG in Alaska.

MR. SCHILHAB responded that individual projects are based on their own merit, looking at how to get that gas to the marketplace in an economic manner. The rationale for developing any project is that if there is an economic project, a company will fund it and take it forward; if the company can get permits, it will do the project. Noting that his own responsibility is to develop Alaska gas, he commented, "We do it through GTL, LNG, gas pipelines. ... We've gone as far as to look at putting in blimps, putting it in submarines, going around the west side; ... I think we've explained a lot of those things to you in the past."

Number 0680

CHAIR OGAN asked all three presenters whether [Governor Knowles] or his designees had consulted or collaborated with any of them prior to making his own announcement about his preference for the [Alaska Highway] route.

MR. SCHILHAB answered, "The governor and some of his staff did visit with our company, and ... came by and talked and let us know what his opinion [is], and we gave him our opinions."

MR. MARUSHACK said, "We have conversations with the governor fairly often about this and other subjects."

MR. KONRAD said, "Same with BP."

Number 0759

CHAIR OGAN thanked the presenters. Noting that he had a list of questions that he would provide in the next day or two, he requested that the presenters answer those in writing and then come back before the committee, possibly on February 22.

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Oil and Gas meeting was adjourned at 11:52 a.m.