

ALASKA STATE LEGISLATURE
JOINT MEETING
HOUSE RULES STANDING COMMITTEE
SENATE SPECIAL COMMITTEE ON ENERGY
CARLSON CENTER, FAIRBANKS
JUNE 13, 2008
10:21 a.m.

MEMBERS PRESENT

HOUSE RULES

Representative John Coghill, Chair
Representative John Harris (AGIA Subcommittee, Chair)
Representative Anna Fairclough
Representative Craig Johnson
Representative Ralph Samuels (AGIA Subcommittee)
Representative Beth Kerttula (AGIA Subcommittee)
Representative David Guttenberg

SENATE SPECIAL COMMITTEE ON ENERGY

Senator Charlie Huggins, Chair
Senator Bert Stedman, Vice Chair
Senator Kim Elton
Senator Lyda Green
Senator Lyman Hoffman
Senator Lesil McGuire
Senator Donald Olson
Senator Gary Stevens
Senator Joe Thomas
Senator Bill Wielechowski
Senator Fred Dyson
Senator Thomas Wagoner

MEMBERS ABSENT

HOUSE RULES

All members present

SENATE SPECIAL COMMITTEE ON ENERGY

All members present

OTHER LEGISLATORS PRESENT

Representative Sharon Cissna
Representative Mike Doogan
Representative Bryce Edgmon
Representative Les Gara
Representative Mark Neuman
Representative Berta Gardner
Representative Woodie Salmon

Representative Peggy Wilson

WITNESS REGISTER

Clark Bishop, Commissioner, Department of Labor and Workforce Development; Guy Bell, Assistant Commissioner and Director, Division of Administrative Services, Department of Labor and Workforce Development; Brynn Keith, Chief Research and Analysis, Department of Labor and Workforce Development; Conrad Mulligan, ARCADIS; Frank Richards, Deputy Commissioner, Highways & Public Facilities, Department of Transportation & Public Facilities; Kevin Banks, Director, Division of Oil & Gas, Department of Natural Resources.

COMMITTEE CALENDAR

HOUSE BILL NO. 3001

"An Act approving issuance of a license by the commissioner of revenue and the commissioner of natural resources to TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd., jointly as licensee, under the Alaska Gasline Inducement Act; and providing for an effective date."

- HEARD AND HELD

SENATE BILL NO. 3001

"An Act approving issuance of a license by the commissioner of revenue and the commissioner of natural resources to TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd., jointly as licensee, under the Alaska Gasline Inducement Act; and providing for an effective date."

- HEARD AND HELD

ACTION NARRATIVE

CALL TO ORDER

Senator Charlie Huggins called the joint meeting of the House Rules Subcommittee on AGIA and the Senate Special Committee on Energy to order at [10:21:40 AM](#).

SB3001-APPROVING AGIA LICENSE
HB3001-APPROVING AGIA LICENSE

[10:22:53 AM](#)

CHAIR CHARLIE HUGGINS observed that the pipeline project would require a large workforce and major training effort to meet that requirement.

CLARK BISHOP, COMMISSIONER, DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT observed that the Alaska Gas line

Inducement Act (AGIA) Training Strategic Plan is the culmination of over 18 months of work, which brought educators, industry, labor and government together. Phase one of the plan is complete; phase two is halfway to completion. Phase three will not begin until more information is available from TransCanada. The training plan acknowledged the current short-term skills gap. The state of Alaska's current non-resident workforce is at 20 percent/ The state's non-resident workforce in oil and gas related professions is 30 percent. He stressed the need to develop apprenticeships to maximize Alaska hire. He pointed out that there are 10,000 new entry level employees [in terms of graduating seniors] every year, which represent a valuable potential workforce. The plan addresses new hires, older workers and workers being retrained. He maintained that kids today want to work and are focused. The department intends to speak with graduating high school seniors regarding apprenticeships.

[10:29:58 AM](#)

GUY BELL, ASSISTANT COMMISSIONER AND DIRECTOR, DIVISION OF ADMINISTRATIVE SERVICES, DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT provided members with a power point presentation AGIA Training Strategic Plan (copy on file). The AGIA gas line workforce goal is a trained and available workforce for gas line related occupations. There are 113 gas line related occupations, which do not just address construction. The focus is to provide Alaskan workers for Alaskan jobs. Skill gaps were identified and defined as "occupations for Alaskan workers that are not available for skilled jobs". The department works to minimize skill gaps through career awareness, effective labor exchange, job center network and accessible training services with the goal of assuring "Alaskans meet the need of Alaska employers for legacy jobs and long term careers."

MR. BELL spoke to the Department of Labor and Workforce Development's training system, which partners with the University of Alaska, Department of Education and Early Development and regional training centers. The department is taking steps to improve service continuums from secondary and postsecondary education to jobs. There are multiple funding sources

[10:32:41 AM](#)

MR. BELL spoke to challenges facing the department and state. There has been an unprecedented 20 year economic growth in the state of Alaska. During this time, industries have had significant upward and downward fluctuations. There has been a significant increase in the oil industry, while the timber industry has seen significant reductions. Approximately, 70,000 workers move in and out of Alaska each

year. The workforce is graying, and leaving skilled positions. Approximately, 113,000 Alaskans are between the age of 51 and 65. However, there are 11,000 Alaskans turning 18 each year. Alaska has one of the highest levels of unemployment and a significant non-resident workforce (approximately 20 percent). Career awareness is a challenge, as is the cost and accessibility of training. Employees need to be drug free, have a valid driver's license, and have meaningful and transferrable certification.

[10:35:00 AM](#)

MR. BELL discussed the department's four AGIA strategies. The first is to increase awareness of and access to careers in natural resource development, which addresses education and the basic skills, and career potentials, as well as improvements to their web-based and other information services.

Second, develop comprehensive career and technical education system. There is room for significant career and technical education improvements or enhancements. The department would like to assure that high school graduates are work ready with a career plan and basic employability skills along with applied skills in math, reading and locating information. A new program, career readiness certificate, is being introduced by the Department of Education and Early Development and is supported by the Board of Education. Technical occupation opportunities need to be expanded, such as the construction academies funded by the legislature, which teach basic construction skills to both in school students and out of school youth and adults. Industry skill standards are needed as a guide to training programs to assure that training is recognized and accepted by employers.

Third, the department wants to increase registered apprenticeships and on-the-job training opportunities. Registered apprenticeships offer a program of work and training that leads to skills and high paying opportunities. The department is working with employers around the state to increase registered apprenticeships and, where appropriate, support structured on the job training opportunities. The Department of Labor and Workforce Development offers financial support for training and partial payment of wages subject to agreement with employers to train and retain Alaskan workers. Success is measured by the number of people who enter and exit training and pre and post training wages.

MR. BELL observed that the fourth strategy is to increase training for operations, technical and management workers. The focus is on people in the workforce that need skill upgrades and have the potential to enter management. The legislature has supported the expansion of the engineering

program at the University of Alaska, Fairbanks. Incumbent workers need to have access to training opportunities. He summarized that the focus is on the current skills gap, "meeting today's job needs", and the legacy of long term jobs.

[10:39:02 AM](#)

BRYNN KEITH, CHIEF RESEARCH AND ANALYSIS, DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT noted that it is a "bit early" in the gas pipeline process for the department's research and analysis portion to generate "solid" employment information. The focus has been on the development of preliminary measures of the current and projected skills gap. She observed that 113 occupations have been associated with AGIA, such as: safety professions, logistics, environmental issues, equipment operations, crafts and administrative support. Occupations run the full gamut from on the job training to highly academic preparations. The wages also vary dependent on the education and training requirement. The department used existing occupational supply and demand data to identify potential gaps. Data was derived from employer unemployment insurance quarterly reports and employer surveys. Alaska Permanent Fund dividend information was also used to obtain a demographic profile of workers. There is no definitive data for supply and demand. It is impossible to know at any given time how many workers are available and skilled or needed. Proxy measures are used to try to determine the skills gap. The current gap was assessed by the percent or number of non-resident workers in an occupation. The lack of available skilled labor force is one of the primary reasons employers hire non-residents. In 2006, 16 percent of those working in gas pipeline related occupations were non residents, which represents a significant opportunity for Alaskans. Of these, over 37 percent were 45 years or older. Many of these workers will need to be replaced in the next 10 to 15 years.

[10:43:10 AM](#)

MR. BELL explained the licensing agreements between Canada and the United States, in terms of reciprocity for engineers. Alaska Law contains a Comity provision, which allows the Board of Architects, Engineers and Land Surveyors to recognize the credentials of educated and experienced foreign engineers and allow them to apply toward licensure in Alaska (Title 8). He did not know if the level of reciprocity in Canadian law was equal. He needed to research similar provincial and federal Canadian laws. There is a one year experience requirement. Canadian candidates for Alaska licensing also need to demonstrate that they have taken an Arctic engineering course.

CHAIR HUGGINS raised the question to determine if adjustments needed to be made.

[10:45:49 AM](#)

COMMISSIONER BISHOP summarized that a Canadian engineer can have one year of experience, come to Alaska, complete an Arctic engineer course and receive a stamp. An Alaska engineer would have to serve a one year apprenticeship under a Canadian engineer to be licensed. He noted that he would discuss the issue in the Yukon.

CHAIR HUGGINS stressed the need for equality.

SENATOR BILL WIELECHOWSKI observed that approximately 15,000 temporary jobs would be created and that 30 percent of the jobs currently on the North Slope are from out-of-state. He questioned what percentage of the 15,000 created jobs would go to Alaskans.

[10:47:50 AM](#)

COMMISSIONER BISHOP could not estimate the number jobs that would go to out-of-state workers.

[10:49:11 AM](#)

REPRESENTATIVE BERTA GARDNER spoke to the expected worker shortage due to the graying workforce in Alaska and questioned if there is a similar phenomenon in Canada.

COMMISSIONER BISHOP observed that Canada is vying for employees as well. He maintained that there would not be enough labor in Alaska, but could not respond to whether there would be sufficient labor in Canada.

[10:52:13 AM](#)

REPRESENTATIVE PEGGY WILSON stressed the importance of education opportunities.

[10:53:09 AM](#)

REPRESENTATIVE LES GARA expressed concern regarding Alaska hire. He observed that there is currently a 16 percent shortfall in employees. He wanted to see an unprecedented amount of job training in order to fill the Union halls. The amount needed will be massive. He stressed the need to avoid the community dislocation that occurred during the pipeline construction.

[10:55:05 AM](#)

REPRESENTATIVE ANNA FAIRCLOUGH asked for more information regarding how the training would occur without putting the jobs in an unemployment market. She observed that the need would be for 2 - 3 years.

[10:56:30 AM](#)

COMMISSIONER BISHOP observed that exploration and development jobs will still exist once the gas pipeline is complete. Gas is different from oil. He stressed that a new industry is starting and emphasized that expansions will take time.

[10:58:55 AM](#)

SENATOR JOE THOMAS suggested that more work needs to be done in the educational high school system in terms of the desire and need to work.

COMMISSIONER BISHOP agreed and emphasized that he has met with the Commissioner of Department of Education and Early Development and they are in agreement that more needs to be done to enhance and educate. He observed that high school seniors by 2009 must take a "work ready - college ready" test. He noted that they are working on uniformity and standards are being developed, but stressed that there are not enough high school counselors. More volunteers and advocates are needed. He emphasized that there are 10,000 graduating seniors entering the workforce each year and that kids are having difficulty finding jobs.

[11:06:04 AM](#)

CHAIR HUGGINS suggested that a prototypical system for vocational training needs be developed.

[11:07:29 AM](#)

REPRESENTATIVE MIKE DOOGAN attempted to bring precision to the numbers. He recalled that some trades allowed Alaskans to remain in Alaska once the pipeline construction was completed. He asked for a break down by category or trades and an estimate of the current workforce in each. He wanted an estimation of how many jobs would remain. There will be a big emphasis on vocational education that he would like to see supported by long term jobs.

MS. KEITH responded that the department is trying to identify the supply and demand and legacy jobs.

[11:10:24 AM](#)

REPRESENTATIVE MARK NEUMAN observed that many learn their trades on the job. He asked how Alaskan workers can be

brought on to jobs when they are not in an organized labor union.

COMMISSIONER BISHOP noted that a project labor agreement would have to be signed with the builder of the pipeline. He felt that a project labor agreement would be reached that would allow qualified Alaskans to be hired first.

REPRESENTATIVE NEUMAN questioned who would be given priority: a qualified non-union or apprenticed union employee.

COMMISSIONER BISHOP observed that it would depend on the projected. He did not have an answer.

[11:14:51 AM](#)

REPRESENTATIVE WOODIE SALMON asked the definition of "local". He stated he would like to define that early on in the process.

[11:18:06 AM](#)

COMMISSIONER BISHOP observed that he is very passionate about Alaska hire. He does not always approve foreign labor hires.

[11:20:31 AM](#)

CHAIR HUGGINS asked for more information regarding hiring parameters.

COMMISSIONER BISHOP stressed the scope of the project and the need for further data before estimates on labor can be made.

[11:23:13 AM](#)

SENATOR ELTON asked if the focus on AGIA occupations would hurt other employers.

COMMISSIONER BISHOP could not respond. He noted that employees at the Department of Labor and Workforce Development are also leaving to work on the North Slope.

[11:25:26 AM](#)

MS. KEITH acknowledged that "back filling" will be a problem and that it is a difficult question, which the department is attempting to address.

[11:26:17 AM](#)

REPRESENTATIVE BRYCE EDGMON spoke to the focus on school vocational training.

COMMISSIONER BISHOP observed that a program was recommended for mine training begin in the 6th grade and maintained they are already behind the curve.

MR. BELL added that vocational education programs are a critical component of secondary education. The department is in discussion with the Department of Education and Early Development regarding introduction of a career and vocational education program to suit local needs.

MR. BELL commented that the legal means to define "local" to the community level may not exist. He added that the department can help to develop training programs locally that assure that people at the local level have the skills for available jobs. He commended the Denali Commission projects, which are an excellent model for local delivery.

[11:29:44 AM](#)

REPRESENTATIVE RALPH SAMUELS noted that the Commissioner suggested that it would take a billion dollars to complete the permits, while the application by TransCanada estimates \$611 million.

COMMISSIONER BISHOP explained that his number came from previous discussions with producers who estimated it would cost a billion dollars for engineering.

REPRESENTATIVE SAMUELS asked if TransCanada, the Port Authority, BP (British Petroleum) or ConocoPhillips participated in the development of the Phase One training program and to what extent.

COMMISSIONER BISHOP observed that ConocoPhillips, BP, Alyeska Pipeline, and others have participated.

[11:31:14 AM](#)

REPRESENTATIVE SAMUELS questioned if TransCanada is doing training programs.

COMMISSIONER BISHOP could not respond, but observed he has indicated to TransCanada that their involvement would be welcomed.

[11:32:13 AM](#)

REPRESENTATIVE WILSON stressed that legislators are willing to help remove any potential stumbling blocks.

[11:34:10 AM](#)

MS. KEITH explained that non residency is measured by the permanent fund dividend definition. The percent of workers are also gleaned from permanent fund dividend applications. The graying of the Alaskan workforce is an issue. Alaska has a long history of drawing seasonal workers from the lower 48 states and other locations, but this will be made more difficult by the fact that the graying workforce is a global phenomenon. Wage data comes from surveys of Alaskan employers. The department did not receive adequate response from their 2007 survey to compile data for that year. The average 2006 wage was just over \$28 [per hour]. The next step is to identify legacy jobs.

[11:36:12 AM](#)

CONRAD MULLIGAN, ARCADIS provided members with a power point presentation: Modeling of Short and Long Term Employment Generated by Construction and Operation of an Alaska Natural Gas Pipeline Project (copy on file). The data presented is based purely on Alaskan jobs and were compiled by ARCADIS.

[11:37:45 AM](#)

MR. MULLIGAN explained that ARCADIS generated projections for three phases: Construction Phase of the pipeline and installation of compressor stations, Gas Treatment Plant (GTP) and LNG facility; Operation Phase of the pipeline and related facilities (compressed stations, GTP and LNG plants); and Exploration and Development work on the North Slope and elsewhere in the state, spurred by operation of natural gas pipeline. Data sources included the TransCanada's (TC Alaska) application and data generated by the Division of Oil and Gas. He explained that the IMPLAN economic impact modeling system was used. The model was cost-driven and used Alaska specific labor factors. The model assumed that the gas treatment plant and LNG facility would be built outside of the state of Alaska; major equipment and materials would be purchased outside; and the labor force in Valdez would be constrained by the size of the camp that could be physically located in Valdez.

[11:39:33 AM](#)

MR. MULLIGAN spoke to the Construction Phase Employment Results. He observed that any mainline natural gas pipeline project would create thousands of short-term jobs in the state of Alaska. The largest number of these jobs will only be available during a brief peak period. A LNG project (4.5 Bcf/per day) from the North Slope to Valdez would provide 16,000 jobs in a single peak construction year. An overland pipeline, as proposed by TC Alaska or the producers (Denali project) would create 15,000 jobs in a peak year.

Employment during construction does not follow a bell curve. The initial increase will be small until the major construction begins, at which time; there will be a short lived massive increase and a rapid drop off. Long-term employment would not occur.

[11:40:50 AM](#)

MR. MULLIGAN reviewed the employments impacts of the operation of the pipeline system. An overland pipeline by TC Alaska or the producers would create 200 operational jobs in Alaska on the pipeline and the GTP facility on the North Slope.

The TC Alaska project would produce 600 long-term jobs: 200 on the pipeline and GTP and 400 jobs at a LNG facility at Prince William Sound. In both cases the jobs would be in existence during the life of the pipeline.

[11:41:35 AM](#)

MR. MULLIGAN discussed employment impacts from exploration and development. The FERC regulations mandate that a natural gas pipeline in Alaska will be an open access pipeline. He explained that ARCADIS looked at "how open would be that access." He observed that effective open access is different from FERC mandated open access. Effective open access would provide reasonable and affordable transportation rates, and timely and voluntary expansions to all shippers. A non-effective open access pipeline system would have higher transportation rates that may not be affordable to all shippers and would not offer voluntary expansions. The only expansions on the line would be those that were petitioned for before FERC. An LNG facility may be included that is not required to operated on an open access basis. He explained that the system would not operate on an open access basis if one part of the pipeline system did not operate on an open access

[11:43:31 AM](#)

REPRESENTATIVE SAMUELS interpreted Mr. Mulligan's remarks as stating that FERC would not allow capacity expansion because "they will always rule with what the state of Alaska thinks". He stressed that FERC would make the decision and questioned Mr. Mulligan's assumptions.

MR. MULLIGAN explained that their presentation was based on the best and worst case scenarios. He suggested that the truth would probably lie somewhere between.

[11:46:55 AM](#)

REPRESENTATIVE FAIRCLOUGH referred to the number of operational jobs remaining. She thought that TransCanada had estimated there would be 50 jobs.

COMMISSIONER BISHOP explained that TransCanada estimated that there would be 70 full-time jobs [long-term].

MR. MULLIGAN explained that the TransCanada figures did not include the LNG North Slope facility.

[11:48:23 AM](#)

MR. MULLIGAN summarized that effective open access with voluntary expansion and reasonable tariffs would lead to favorable explorer economics and aggressive new exploration and development activity on the North Slope. Non-effective open access with no voluntary capacity expansion would limit natural gas exploration and development work on the North Slope until current producing fields fall off of their production plateaus.

[11:49:32 AM](#)

CHAIR HUGGINS questioned if petro chemical on different order of magnitudes in the United States were considered. The assumption has been that the value added products would go to Alberta. He questioned what would be the affect on jobs.

COMMISSIONER BISHOP responded that the department is addressing the issue.

[11:50:18 AM](#)

MR. MULLIGAN assumed that new production facilities on the North Slope would be constructed in the state of Alaska. New natural gas fields would be brought on line to keep lines full at a given assumed capacity. The best case scenario would be 5.9 Bcf/per day. The worst case scenario would be 4.5 Bcf/d.

MR. MULLIGAN explained that under the TC Alaska proposal there could be 72,000 jobs created between the years 2015 - 2045. Non-effective open access could result in approximately 47,000 jobs from 2015 to 2045. Jobs could be created as early as 2015 with open access, but non-effective open access jobs could be delayed as late as 2026.

[11:52:06 AM](#)

REPRESENTATIVE CISSNA questioned if support industries were included in the estimates. Mr. Mulligan promised to provide the data.

MR. MULLIGAN spoke to the timing of exploration and development of job creation as a function of the pipeline's characteristics. He summarized that effective open access equals jobs sooner and that the timing of the jobs are important to offset declining North Slope production in order to maintain existing skill sets and a talent pool in Alaska.

CHAIR HUGGINS recessed the meeting at [11:56:53 AM](#).

CHAIR HUGGINS reconvened the joint meeting of the House Rules Standing Committee Subcommittee on AGIA and the Senate Special Committee on Energy at [1:36:07 PM](#).

[1:36:19 PM](#)

FRANK RICHARDS, Deputy Commissioner of Highways & Public Facilities, Office of the Commissioner, Department of Transportation & Public Facilities (DOT&PF), presented a PowerPoint report titled "Gas Pipeline Corridor." He explained that he will discuss some of the challenges and issues Alaska will face when preparing roads, airports, and infrastructure prior to gas line construction along the highway route from Prudhoe Bay to the border. He informed the committees that his assumptions are going to be based on previous departmental discussions with the producers. During the Murkowski Administration the department had discussions with the producers regarding the construction needs for infrastructure development. From that, the department gained insight into what the producers' pipeline would look like. The department, he related, learned that the gas line, in contrast to TAPS, will be a buried pipeline, which will require more earth work and movement of materials by trucks. Furthermore, there will be heavier loads due to the pipe thickness of 1.25 inch. Moreover, there will be challenges due to the fairly large module movements for the compressor stations and the associated freight necessary to support the gas line. The gas line, he further related, will likely have more ports of entry and possibly more air freight traffic. Mr. Richards said that there will be more background traffic; in fact, the traffic will be a mix of construction equipment, pipeline equipment, and small vehicular and truck traffic. He then highlighted that the pavement on the existing highway system is nearing the end of its useful life, and therefore it is likely there will be deteriorating pavement conditions.

MR. RICHARDS informed the members that a typical load for the gas line will likely be single sticks of pipe on an individual truck. From the producers' perspective, he anticipated that there would be 80 foot long sections of pipe in order to reduce the number of field welds. The proposal calls for approximately 750 miles of pipeline running along the highway system, which equates to almost

50,000 truck loads of pipe that would be transferred over Alaska's roads. For an individual legally-sized truck, weighing in at 80,000 pounds, that amounts to about 3,600 vehicles transiting the highway system. The weight of the pipe used for the pipeline amounts to almost 885 million vehicle trips, which will significantly impact the condition of the highway system. Therefore, it is necessary to improve the road system prior to the aforementioned heavy traffic.

MR. RICHARDS, referring to slide 4 titled "Why Now?" explained that he's discussing infrastructure development now because in order to have gas flowing into the market by 2018 or 2019, construction must begin by 2015. He emphasized that in order to avoid competing projects, DOT&PF needs to have its work done in approximately six construction seasons "starting today." The aforementioned is a very aggressive timeline. The department, he related, needs time to develop and design the project, proceed through environmental permitting, obtain the necessary rights-of-way, and put out bids such that contractors can complete the work in a timely fashion. In reality, the department is already behind, he said. Mr. Richards opined that there are benefits achieved by going out to bid sooner rather than later, such as obtaining less costly materials. For instance, asphalt costs have significantly increased over the last five months. He highlighted that currently the state is relying heavily on Federal Highway Administration (FHWA) funds to construct and reconstruct the state's highways and infrastructure. However, the state can not rely on those federal funds to accomplish all the work because there are not enough federal funds coming into Alaska and there are competing projects already in the statewide transportation improvement program (STIP). Furthermore, the federal process that accompanies the federal funds is lengthy and adds a considerable burden to achieving the project in a short timeframe. Mr. Richards pointed out that in some instances such as for bridges requiring improvement to handle the heavy [truck] loads, federal dollars can not be used for additional capacity because it is beyond the specified federal standard. Mr. Richards emphasized that the infrastructure projects going forward will be great opportunities for training for the workforce development that will be necessary for gas line construction. He then highlighted that during the construction of TAPS there was a significant spike in accidents and fatalities that occurred. Therefore, the department's goal is to improve the infrastructure in order to reduce the number of accidents due to the increased traffic volumes.

MR. RICHARDS, referring to slide 6 titled "State Funds Advantages," explained that the chart illustrates the individual phases of a project through to construction under

the federal process and the state process. The chart indicates that state-funded projects provide the ability to perform parallel phases, which cuts the time by two to three years as well as the costs for those two to three years. Upon reviewing the overall infrastructure needs for the gas line construction, there will be key "chokepoints" along the route, as illustrated by slide 7. Those chokepoints include Atigun Pass and the Yukon River Bridge. He questioned whether the Yukon River Bridge will be load limited and whether it will be able to handle the extra pipe placed on it due to the gas line. He noted that there will be urban area traffic flow for freight and goods and the congestion associated with those areas may impact construction as well. He then highlighted the need to determine ports of entry for the pipe and the associated freight. He reiterated the existence of older bridges that have height and weight limits, such as that presented in the slide titled "Example of Limiting Bridge Gerstle River - Alaska Highway." He related the need to replace such bridges and avoid chokepoints. Therefore, a program to reconstruct deficient highway embankments, improve alignment on existing routes, reduce the grades, and address the bridges needs to be developed. One of the primary goals, he related, is to search for and develop much needed material sites for aggregates necessary for the pipeline and the highway.

[1:46:10 PM](#)

REPRESENTATIVE STOLTZE returned attention to the chokepoints, specifically the Anchorage to Wasilla chokepoint. He noted that he and Senator Huggins have been working on a remedy for that chokepoint, which he identified as the Knik Arm Crossing. He noted that from his discussions with the industry, he has gleaned that the industry views Port MacKenzie as the port for gas line deployment. Therefore, he asked if DOT&PF will re-evaluate the next phase of the Knik Arm Crossing in the scope of increased fuel costs and increased necessary costs and avoiding the congestion in downtown Anchorage and Wasilla. He asked whether DOT&PF will provide the administration with reliable information regarding alternative costs and avoided costs while taking an objective look at the project.

MR. RICHARDS related that the department has asked very pointed questions of the Knik Arm Bridge and Toll Authority (KABATA) in order to determine the state's risk associated with the project. The desire, he further related, was to get a handle on the overall monetary and construction timeline risks, particularly the permitting issue. In regard to Port MacKenzie, Mr. Richards said it will depend upon where the producers or TransCanada decide to bring in the freight. The department wants Port MacKenzie to be the entry point of freight and thus desires roads to be in sufficient condition to handle the freight traffic. He

reminded the committee that this year's capital budget included funding on the Burma Road to be able to proceed with purchase of the right-of-way.

[1:49:10 PM](#)

CHAIR HUGGINS interjected that a rail spur is part of the aforementioned. Therefore, he opined that a briefing of this sort without mention of rail is incomplete. In fact, he expressed the need to discuss rail first and then alternatives such as asphalt otherwise the state's infrastructure will be destroyed.

[1:49:39 PM](#)

SENATOR WIELECHOWSKI opined that it is critical to discuss and determine the entry point for freight, which he assumed would be the Port of Anchorage. He further opined that the port is also a major issue that needs to be addressed in terms of whether it is adequate and has the necessary facilities.

MR. RICHARDS noted his agreement with regard to the need to review all transportation assets, but the challenge is that DOT&PF has not been able to have an extensive conversation with TransCanada yet. The aforementioned, he said, is why he wanted to focus today's discussion on the road assets that parallel the pipeline while acknowledging that there are other needs that must be addressed. Until information is received from TransCanada, the department is at a disadvantage.

CHAIR HUGGINS recognized Governor Palin's presence.

[1:51:45 PM](#)

REPRESENTATIVE GARDNER questioned whether the Canadian side is going through a similar process with regard to identifying their needs.

MR. RICHARDS informed members that the department met with representatives from the Yukon Government last month and discussed many topics, including their ability to move forward and improve their highway assets prior to construction of the pipeline. He recalled that the biggest challenge expressed from the Yukon Government was in regard to their heavy reliance on Shaktak funds. He explained that the Shaktak funds are funds that are provided to the Yukon Government by the U.S. Congress in order to address the needs on the Alaska Highway. Approximately 60 percent of [the Yukon Government's] capital program relies on Shaktak funding to cover [the Yukon Government's] highway program. In the next reauthorization of the federal highway legislation, which is due next year, there is much

anticipation that the Shakwak funding will not be available. The aforementioned will significantly impact the Yukon Government and its ability to address highway needs, he remarked.

[1:53:34 PM](#)

MR. RICHARDS, returning to his presentation, related that his goal is to develop a programmatic approach in order to have a system in place that allows the design and environmental documentation, as well as construction on multiple projects. He reiterated that the highway work will include realignment, widened road surfaces, embankment, and surfacing improvements. The aforementioned will improve the maintainability of the roads as well as ensuring structurally sound surfaces for existing and future construction traffic. The benefit, he said, is that there will be utility now and in the future during pipeline construction. Mr. Richards then turned attention to slide 10, which illustrates a typical module move and the width and height requirements.

MR. RICHARDS moved on to slide 11 titled "Transportation Corridors Identified for Ongoing Analysis", which depicts the all-Alaska pipeline as well as the logistical corridors that may feed that. He highlighted the logistical hub located on the Haines highway, which may be a major point of entry for the pipe and feed the Yukon, British Columbia, and Alberta areas. He then turned his focus on the Prudhoe Bay to Fairbanks highway route, which is essentially located on the Dalton and Elliot Highways. There would be a hub in Fairbanks that would serve as a key logistic point. He explained that some of the freight may be moved by the railway from Seward into Fairbanks and then placed on trucks to be shipped north and east. The second segment would be from Fairbanks, east of the Yukon border, on the Richardson and Alaska Highways. The common challenge on all of these routes, he specified, is that they are underlain by continuous and discontinuous permafrost. Mr. Richards, referring to slide 13 titled "Dalton Hwy Corridor Cost Summary," informed members that the department has identified approximately 36 projects on the Dalton Highway. The Dalton Highway is a rugged road that was built in advance of TAPS and then used during the construction of TAPS. Ultimately, the Dalton Highway was given to the state and opened to the public as part of the National Highway System. He noted that although the state has spent some of its FHWA funds on the Dalton Highway, very little has been spent on the Dalton Highway over the last three years. The aforementioned highway is in need of improvements due to the steep grades, blind corners, reduced visibility, and aging infrastructure. Mr. Richards characterized the Dalton Highway as the industrial highway as it provides access and feeds the industry. This is an aggressive program with

approximately \$1 billion in costs for the Dalton Highway. He informed the committee that although several projects for the Dalton Highway have been designed, the projects have not been achieved due to the lack of federal funds. The goal over six years would be approximately \$167 million to achieve the aforementioned work. He acknowledged that it is an aggressive timeline, but highlighted that it is necessary in order to avoid conflict. He reiterated that DOT&PF has three projects on the books that are nearly ready to bid. These projects, were the department able to obtain funds in the amount of \$75 million, would go out this winter. He emphasized that the most important matter is obtaining some upfront funds to start the necessary design of the most critical area, which is located at the start of the Dalton Highway to the Yukon River Bridge, as well as to initiate a material site study.

[1:58:43 PM](#)

REPRESENTATIVE FAIRCLOUGH, recalling the 64 percent increase in the cost of asphalt over the last five months, inquired as to the capital construction cost inflation number Mr. Richards used with the \$1 billion request.

MR. RICHARDS, characterizing these as high level numbers, specified that the analysis used about a 4 percent inflationary increase.

REPRESENTATIVE FAIRCLOUGH said that she appreciates the conservative number. However, with such sharp increases in construction costs, she expressed concern as to whether \$1 billion will be enough. She characterized \$167 million a year for six years as being a low number, and therefore the legislature may want to review a transportation fund due to the infrastructure needs of the state.

[2:00:26 PM](#)

REPRESENTATIVE ROSES asked if the bridges and roads would need to be upgraded if a pipeline is not constructed.

MR. RICHARDS replied yes. In further response, Mr. Richards confirmed that the department would like to improve the Dalton Highway. He then highlighted that with the help of the legislature, starting several years ago, DOT&PF was able to initiate a heavy maintenance initiative on the Dalton Highway. The department received approximately \$9 million a year and this year the department received \$5 million and \$14 million in a GO [general obligation] bond package to address the most critical surfacing needs. The work being proposed is to improve the structure in order to meet the national highway standards in terms of alignment and grade. With regard to the 4 percent [inflation], Mr. Richards explained that existing contract numbers are being used in

order to be conservative. He acknowledged that the 4 percent is challenging in the face of energy cost increases, but he pointed out that he did not know if that spike will continue.

[2:02:49 PM](#)

REPRESENTATIVE FAIRCLOUGH remarked that one of the challenges with the inflation number is the quality of the rock, the aggregate. She requested Mr. Richards's thoughts on aggregate.

MR. RICHARDS stated that one of the issues with traffic was rutting. One of the primary tools used to address rutting is the use of hard aggregate. Hard aggregate, he explained, is rock that does not degrade due to traffic volumes or the use of studs. In fact, when Tudor Road [in Anchorage] was repaved, test sections were paved. One test section was paved with regular aggregate while the opposing section was paved with a hard aggregate. Those sections have been monitored in order to determine if the hard aggregate provides resistance to stud wear. Mr. Richards pointed out that when considering the materials slate for the Dalton Highway, it is considering hard aggregate as well as materials such as gravel and hard rock sources. The material sites provided from the TAPS construction and in intervening years have played out. Therefore, it is necessary to identify the options for opening material sites for highway construction needs as well as for the pipeline.

[2:05:05 PM](#)

CHAIR HUGGINS reminded members that the University of Alaska Fairbanks (UAF) has an asphalt laboratory that has and continues to work on the aggregate problem. He then turned attention to slide 13, which specifies that the Dalton Highway Corridor will take six years to [construct]. However, he challenged [DOT&PF] to return with a request for funding that will result in a compressed timeframe. Chair Huggins related the need for the department to do better with its [timelines] and accomplishing its tasks. He emphasized the need for the department to rejuvenate its approach, planning, and execution in order to avoid price increases and lengthening of the timelines.

MR. RICHARDS said that what Chair Huggins is asking of the department is warranted. He highlighted that the shift from a federally funded program is a cultural shift. Although the aforementioned can be done, it requires leadership in the department to meet the aggressive timelines.

[2:08:19 PM](#)

SENATOR ELTON asked if DOT&PF views the infrastructure improvements as an increment of the ongoing work with existing ongoing projects, such as urban interchanges and rural airports. If that is the case, he then asked if [the state] has the financial and worker resources to do both.

MR. RICHARDS highlighted that the department has already identified much of this work in its long-range transportation plan that was published this spring. Over \$12 billion of highway work was identified, including this [infrastructure upgrade] work. Therefore, the work has been on the books, although the department has not had the funding mechanism to accomplish the work in the near term. The heavy dependence on federal highway funds and the declining of those funds has resulted in the projects being pushed farther downstream until a funding source was available. With regard to the contracting community, Mr. Richards related that he understands that they have the workforce and the wherewithal to accomplish these projects.

SENATOR ELTON surmised that if the funds necessary to [achieve infrastructure upgrades] are committed, there will be fewer dollars for other projects that have already been identified.

MR. RICHARDS clarified that the competing needs related to urban interchanges and safety enhancement improvements on other roads remain. That work is necessary, is included in the STIP, and needs to move forward. The funding source for the work being discussed is unknown, and thus it is necessary to discuss with the legislature how best to fund the work because the department cannot rely on the dwindling federal funds.

[2:11:45 PM](#)

MR. RICHARDS returned to his presentation referring to the slide titled "Elliot Hwy Corridor." For this work effort, the department is reviewing solely the 70 miles from Fairbanks to Livengood. The department has identified six projects along this route, including three highway projects, one airport, one bridge, and one facility. The timeline [for the Elliot Highway Corridor] is 2009-2014 and estimated costs are approximately \$100 million. He then moved on to the slide titled "Richardson Hwy Corridor," which focuses on the portion of the Richardson Highway from Fairbanks to Delta Junction, that parallels the pipeline. Along that 95-mile segment, approximately 21 projects were identified, including railroad crossings, overpasses, passing lanes, and truck rest areas. The projects also included providing new and improved weigh stations. On this portion of road, a considerable amount of work exists to rehabilitate the existing alignment and address bridges. Very little of this work has started, he noted. Continuing with the slide

titled "Alaska Hwy Corridor," Mr. Richards explained that the Alaska Highway Corridor runs from Delta Junction east to the border and parallels the Tanana River. This area presents some of the most challenging highway needs, but there is no current funding to complete these projects. He specified that there are several large and costly bridge replacements for which the work will total approximately \$160 million. The highway work, he noted, will address distressed pavements, add passing lanes and pullouts for trucks, as well as pullouts at bridge abutments in order to avoid impeding traffic. Mr. Richards pointed out that the replacement of maintenance stations is included along the Alaska Highway Corridor because the existing maintenance stations are beyond their useful lives.

[2:15:07 PM](#)

MR. RICHARDS, referring to slide 22 titled "Why Start With Dalton Hwy Corridor," specified that the department started with the Dalton Highway because it has bid projects ready that total approximately \$75 million. That work can be put out for bid and be under construction by this time next year. The design efforts can begin too, so that there will be work in 2010 and 2011 in order to identify, permit, and open up the material sites. Turning to the slide titled "Issue of Financial Responsibility," Mr. Richards pointed out that regardless of who obtains a FERC license, work will be necessary to ensure no adverse impacts to gas line construction. Under previous FERC rulings, the FERC has said that the highway agency could not back charge the gas line for use or deterioration of the highway assets unless all users could be charged. The question of who pays is one which the legislature should continue to discuss with the department. As mentioned earlier, federal funding is not looking good as the trust fund is scheduled to go negative in 2009. With the current high cost of gasoline, nationally less vehicle miles are being driven and thus less funds are flowing back to the trust fund that is ultimately allocated to the state.

MR. RICHARDS reminded the members that the statewide needs are large, approximately \$12 billion, and growing. Furthermore, the STIP already has projects with a great expectation that those will be fulfilled. As mentioned earlier, the Yukon's heavy reliance on Shakwak will be in for a rude awakening if there are no Shakwak funds in the next reauthorization. Therefore, going forward there will need to be good consultation with the gas line owner in order to implement the necessary features, including turn lanes, truck pullouts, passing lanes, and module safety areas. Since these features will be unique, there will need to be discussion regarding who will pay for those features. Furthermore, there are new technologies that the department hopes to implement at the weigh stations in order to

facilitate quick pass-through of commercial vehicles. To date DOT&PF has hired a full-time coordinator to ensure that DOT&PF is aware of the improvements necessary to be ready for gas line construction. As mentioned earlier, DOT&PF has been in consultation with the producers and most recently with TransCanada with regard to the infrastructure needs. The department has identified the key work as presented. Although there are federally funded projects underway at various airports and highways, those federal funds will not be sufficient to meet the overall needs of the program. With the passage of the capital budget, the GO bonds address some of the significant impacts on the highway system and it will be up to a vote of the people to determine whether those projects are worthy. He then directed attention to the slide titled "Visible Progress," which illustrated recent improvements such as the Washington Creek Bridge replacement and raising the grade on the Dalton Highway.

[2:19:56 PM](#)

MR. RICHARDS referred to slide 28 titled "New Jobs Created," which relates specifically to the Dalton and Elliot Highways. The chart illustrates that the workforce within DOT&PF, the ancillary or created jobs associated with that \$1 billion worth of work amounts to approximately [1,400 positions] a year over the six-year program. He reiterated that when the department receives appropriations to move forward, the Dalton Highway will be the focus.

[2:20:42 PM](#)

REPRESENTATIVE DOOGAN related his understanding that Mr. Richards has laid out roughly \$2 billion worth of highway work of which about half of the work is located on an industrial highway while the remainder is located on highways on which Alaskans will drive. At this point, there is no knowledge as to whether this work to aid the pipeline will actually have a pipeline at the end of it. Therefore, he questioned why the department has decided to start work on the road that is only necessary if there is a pipeline versus those portions of the road that Alaskans would benefit regardless of the construction of the pipeline.

MR. RICHARDS said that the work he is discussing today would be useful to Alaskans because Alaskans, in terms of the trucking industry, will drive the freight and goods to the North Slope. Therefore, he opined that the proposed road work will benefit Alaskans now as well as for use during [pipeline construction and operation].

REPRESENTATIVE DOOGAN said, "... not exactly the same Alaskans or the same kind of use." He then posed a scenario in which there was knowledge that there would be funding for these projects, a date of completion for the projects, and

which will be directly connected. In such a scenario, he inquired as to how long it would take to perform what is suggested. He questioned whether it would be a staggered series of projects year-to-year or several projects in progress at once.

MR. RICHARDS described "ramping up" for the projects and initial design work as well as a condensed timeline during which construction will be underway in order to accomplish the projects. He said, "The sooner the better." If the construction can be spread out, better bids could come from the contractors. With regard to a cash flow basis and construction, the goal is to ultimately achieve completion of the necessary infrastructure work prior to [construction of] the gas line. Therefore, this construction work needs to begin in 2009 and ramp up 2010-2013. Mr. Richards pointed out that the department has identified \$2 billion worth of work from Prudhoe Bay to the Canadian border. Taking that \$2 billion over six years is on par with the state's existing annual highway program federal funds; however, if federal funds decrease the state will likely see significantly less. He opined that the state will have the capacity in the contracting community and within DOT&PF to develop the projects with support from consultants.

[2:25:33 PM](#)

REPRESENTATIVE DOOGAN observed that the state is spending funds on highways in anticipation of a pipeline that may not go forward. He questioned the department's wisdom in picking the parts of the highway that have the least utility to Alaskans for [repair] upfront, rather than "projects ... we get better roads out of whether there's a pipeline or not."

[2:26:36 PM](#)

REPRESENTATIVE JOHNSON asked whether there has been consideration of a railroad to the North Slope that could be used to transport LNG. With or without a pipeline the railroad would fulfill the needs of Alaskans.

MR. RICHARDS stated that he knew of no study for a railroad going north to Prudhoe Bay.

[2:27:52 PM](#)

REPRESENTATIVE GUTTENBERG reminded members that Prudhoe Bay is the "largest industrial area on the planet now and its infrastructure needs a lot of support." Ten years ago the estimate to improve the Dalton was about \$900 million and the ability for long-term maintenance has not been built into the DOT&PF plan. He opined that a different kind of planning structure needs to be in place to think about long-

term needs for gravel and material. Representative Guttenberg asked whether long-term planning is included in the projects.

MR. RICHARDS assured the members that the development of the project identifies the need for maintenance and the need for critical stockpile placement to better operate the road. He said that the department is relying on the expertise of the long-term operators on the highway.

[2:30:22 PM](#)

SENATOR ELTON referred to the slide titled "Issue of Financial Responsibility." He asked whether the department is suggesting that highway improvements needed for the pipeline project ought to be covered in the tariff.

MR. RICHARDS said that he wanted to identify that there are funding alternatives, whether or not they are selected is up to the legislature.

SENATOR ELTON said, "I am right in assuming that you're suggesting that some of these costs can be recovered through a pipeline tariff."

MR. RICHARDS clarified that he was not making a suggestion, but pointing out that in previous pipeline tariff discussions with FERC, this was an issue.

SENATOR ELTON asked whether he has talked about this with TransCanada.

MR. RICHARDS said no.

[2:33:04 PM](#)

REPRESENTATIVE NEUMAN observed that a lot of money is being laid on the table. He expressed his preference to have a long-range plan to address decreasing federal highway funds and increasing ferry costs. He reviewed other billion dollar state programs and requested that the administration provide an accounting of funding requests from all of the departments for the next few years.

[2:35:16 PM](#)

MR. RICHARDS agreed to provide an accounting of long-term need.

[2:35:43 PM](#)

REPRESENTATIVE NEUMAN pointed out that there is a lot of money going out without a pipeline "locked in."

[2:35:59 PM](#)

REPRESENTATIVE WILSON requested that DOT&PF provide a best- and worst-case scenario in order to obtain a range of costs.

MR. RICHARDS said he would be glad to do so.

[2:38:15 PM](#)

CHAIR HUGGINS encouraged members not to underestimate what additional infrastructure may be needed in Canada.

[2:38:36 PM](#)

REPRESENTATIVE COGHILL advised that there is tension between the lane miles and safety issues of Southcentral Alaska and the industrial access needed to the North Slope. He noted that Fairbanks is interested in making sure that the corridor serves the rest of the state. He referred to Mr. Richard's earlier statement that DOT&PF is working on to how to get state regulations to do things concurrently. He asked if there are only state dollars put into the Dalton Highway whether the state would still have to deal with the federal regulatory style or timelines. Also, would that be true in the lane mile issue for major corridors such as the Seward Highway or the Parks Highway. Representative Coghill said, "Is our timeline helpful or [are] our dollars going to go in with the expectation that we're going to do concurrent regulations and then fall into the federal's hands for those timelines for the regulatory framework?"

MR. RICHARDS explained that his reference to the federal process was of the environmental regulatory process under [National Environmental Policy Act of 1969 (NEPA)] that is the guideline that must be followed when using federal highway, aviation, and railroad funds. The reference to the Dalton Highway was of the national highway standards for alignment and grade for safety aspects. He opined that the benefit of using state funds is that the department would not have to follow the NEPA process, but rather would use less onerous state requirements that allow environmental work to be done concurrently with design and right-of-way phases.

REPRESENTATIVE COGHILL observed that the pipeline project will involve moving heavy equipment over bridges that require upgrades; in fact, river crossings require regulations from the U.S. Army Corps of Engineers. He asked whether the state is in charge of the timelines for bridge changes.

MR. RICHARDS agreed that there are two aspects to bridges; where there is a passage of flood waters the state looks to the U.S. Army Corps of Engineers and hydrology studies.

However, regarding the superstructure and substructure of the bridge and its capability to handle a heavy load, by using state funds the bridges can be built stronger because federal funds have a cap in terms of the design loads that are eligible.

[2:43:12 PM](#)

REPRESENTATIVE FAIRCLOUGH expressed her belief that the discussion of alternative funding for highways is counterproductive to exploration and the opening up of the North Slope basin; in fact, driving up the tariff to fund the Dalton Road and highway projects will limit exploration and production. She asked whether revocation of the Shakwak funding will prompt Canada to look to Alaska for funding for Alaska Highway upgrades, and if Alaska declines, whether the cost for those improvements would end up in the tariff.

[2:44:51 PM](#)

CHAIR HUGGINS agreed that there may be an expectation incumbent upon Alaska to contribute to the infrastructure. In addition, "the rate would be counterproductive: no pipeline."

[2:45:08 PM](#)

REPRESENTATIVE GARA observed that the improvement funds for the Dalton Highway are general fund (GF) funds to be spent on a road that is primarily used for the oil service and production industry, and the numbers are staggering. He asked, "I'm wondering how much of the tax revenue that we're taking in we're giving back in terms of road construction projects? ... Is this all normally a GF expense?"

MR. RICHARDS responded that GF expenditures on the Dalton Highway have to date covered mostly maintenance and operations of the highway; however, the state has contributed capital monies of approximately \$9 million in the past three years to cover heavy maintenance. In addition, there have been federal funds used for improvements in the past eight to ten years. He pointed out that using federal highway dollars precludes setting up a toll on the Dalton.

REPRESENTATIVE GARA further asked whether the significant road upgrades expected for the construction of the pipeline and to support oil production on the North Slope are expected to be at state cost with no reimbursement.

MR. RICHARDS answered that the source of the funds is up to the will of the legislature. In further response, he said that the current expenditures on the Dalton Highway are a

combination of federal and state funds, a portion of which are fuel taxes to the state.

[2:48:21 PM](#)

CHAIR HUGGINS said, "Our challenge to you is that we would prefer not to be surprised by the requirements that go into infrastructure at a later date, understanding that our [request] for you is [to] bring us in a timely fashion as you can, what we are going to do in the respect of on our side of the border, and on the other side of the border, as it pertains to infrastructure: rail, air, and surface."

[2:48:51 PM](#)

MR. RICHARDS presented slide 29 titled "Next Steps" and expressed the department's need to prepare for the fiscal year [FY] 2010 budget. The budget must include transportation improvements not only associated with the gas line but in terms of the general fund programs in the Alaska Transportation Fund and the safety corridors in the Mat-Su valley. Regarding the gas pipeline, he related the department's intent to create a state gas line permit office to receive project information and streamline the permit process. Further, the office would work concurrently with the federal permitting process in order to advance the transportation projects and the pipeline process. He continued to explain that DOT&PF would also like to establish an apprenticeship program in order to develop the needed workforce with the skill sets gained from the educational system set up by the Department of Labor & Workforce Development (DLWD). He stressed that the department will continue its dialog with its Canadian counterpart to learn what their needs are and how Alaska can work with them in order to avoid "a major hiccup coming down the line."

MR. RICHARDS then presented slide 30 titled "Other Issues" and reviewed DOT&PF's responsibility to streamline commercial vehicle enforcement to provide for over-size and over-weight permit issues for existing companies and contractors on the gas line. In addition, the department must address maintenance and operations support during the construction of the pipeline, safety and law enforcement needs, aviation needs, and right-of-way (ROW) issues for the TransCanada Alaska line and the potential bullet line that may pass through Denali National Park and Preserve which would require a review of the Alaska National Interest Lands Conservation Act (ANILCA).

[2:53:21 PM](#)

MR. RICHARDS concluded that the last issue is to look at the construction impact on tourism and other industries in the

state. He opined that construction of the gas line is an uphill battle that will require a concerted effort on many entities within DOT&PF, the legislature, the administration, and the pipeline owner to accomplish.

[2:54:00 PM](#)

REPRESENTATIVE COGHILL asked whether accommodations for tourism, such as pullouts and rest stops, have been reviewed for the Richardson and Parks highways.

MR. RICHARDS acknowledged that additional wayside rest stops are necessary; in fact, there will be a need for module wayside pullouts at bridges to allow traffic to go through. Those features, plus passing lanes, are included in cost estimates in order to have a better and safer highway system.

[2:55:51 PM](#)

The committee took an at-ease from 2:55 p.m. to 3:22 p.m.

[3:22:56 PM.](#)

CHAIR HUGGINS called the meeting back to order.

[3:24:51 PM](#)

KEVIN BANKS, Director, Central Office, Division of Oil & Gas, Department of Natural Resources, presented a PowerPoint report titled "An Explorer's View of Gas Pipeline Issues." He informed the members that a decision to explore is based on the analysis of the same two questions posed during the AGIA process: What is the [Net Present Value] and what is the likelihood of success. He explained that given the set of uncertainties and the risk of failure, or of finding less gas and oil than expected, must be first considered in a decision on the possible outcome of a project, including a "dry hole" or a "very big find." Mr. Banks presented slide 2 titled "Explorer's Decision Tree" that illustrated a decision tree and a timeline from prospect exploration to production. He pointed out that a decision tree is not a timeline, but a tool to provide analysts with the ability to know whether a project is worthwhile before any work is committed.

CHAIR HUGGINS asked Mr. Banks to provide clarification of the qualification "assumes land position already [established and prospect is identified and ready to drill]" on the decision tree illustration.

MR. BANKS responded that the illustration of the decision tree assumes the entity is now in position to make the first large decision to drill an exploration well after acquiring

the leases, conducting some seismic work, and study by geologists to portray and characterize the prospect. "Put yourself in the position of a commercial analyst sitting in on this team [who] has been asked whether or not to go ahead, to make that decision to drill the first well," he said. He added that when a company comes to this point, timing is a factor in terms of calculating the net present value; however, this is the point to decide whether to drill an exploration well that will cost \$50 million. He estimated that the risk of losing that investment is 60 percent. The decision is based on the likelihood of success and a company may study other "look alike" basins with similar structure, and may also draw on past experience with finding gas.

[3:27:41 PM](#)

SENATOR WIELECHOWSKI stated his appreciation of the description of the decision tree, but noted that the companies are already at the production phase as significant quantities of gas have already been discovered. He asked whether this presentation is for general purposes.

MR. BANKS stated that the presentation is about companies who are in a position to explore for gas and whether the gas pipeline will be ready for them to put newfound gas into. He explained that he is discussing the effect on an explorer's decision to know about the tariffs and the possibility of expansion on the pipeline. "This is truly about a new exploration play in the event the pipeline's there, but we're now looking for some kind of expansion," he said.

[3:29:15 PM](#)

MR. BANKS continued to explain that the second step in thinking about the probability of success is the delineation phase. There remains a potential for failure even if there was success with the first well in the exploration phase. During the delineation phase other wells are drilled to prove up the size of the prospect and to determine the upside potential. The additional wells may involve more testing to further assess the formation. Referring back to the decision tree, he said that the intent is to incorporate into the thinking what all of the outcomes will be in a potential development strategy. To begin, he reviewed the 5 percent chance of finding a \$3 billion revenue stream; alternatively, there may be an uneconomic outcome when the revenues are less than the cost of development. A Monte Carlo kind of analysis would reveal a set of outcomes that are illustrated as a distribution where thousands of outcomes may be included in the evaluation. The notion is that all of the potential outcomes are accounted for and equal 100 percent. For example, if it is known that there

are 10:1 odds, then to bet \$10, one would ensure that the winnings will be at least \$100, which is the expected monetary value. In this kind of analysis, for each outcome it is determined what the net present value would be and the associated probability of outcome; the resulting value is the expected monetary value. Mr. Banks continued to explain that the expected monetary value of this project is \$800,000, even though one of the outcomes predicts revenues of \$3 million. He stressed that at the time a company is making the decision to drill it is only looking at the \$800,000 net present value. He concluded that exploration decisions are pretty fragile because the gains and the potential losses are amplified by these probabilities.

[3:34:55 PM](#)

REPRESENTATIVE NEUMAN opined that as far as the gas pipeline the project is still in the exploration and development phase because the wells that have been drilled are oil wells. He remarked:

TransCanada's expectations that we're going to be up to 40, 48 t in 10 years [and] after the gas is flowing, upwards of 90 in 25 years; in fact, we'd still be at the very left hand side of exploration and development as far as gas, and AGIA, the pipeline is concerned, so all this is all brand new.

MR. BANKS agreed with that perspective because the state knows that there are existing reserves and has gone far in establishing what those reserves should look like to support a pipeline for a certain amount of time; however, expansion of a pipeline, and keeping gas in a pipeline beyond some period of time, will rely and depend upon successful exploration. The following discussion will reveal how expansion is governed and its effect on exploration.

[3:37:29 PM](#)

SENATOR ELTON asked whether the projections account for any of the credits that the state extends for activity on the North Slope.

MR. BANKS said that the modeling does account for the credits. He observed that tax credits are important because the state is participating in the decision tree at exploration, where the outcome could very well be a dry hole. He said, "So when the state puts its money there, it is, really has a great deal more horsepower than it does when we've already found gas and we're now stepping into development."

[3:38:32 PM](#)

SENATOR THOMAS pointed out that wells have been drilled and there are known reserves of 35 trillion feet; he questioned why, when wells have discovered gas, Mr. Banks would consider the project to be at the beginning phase.

MR. BANKS acknowledged perhaps speaking too loosely; in fact, a probability of 60:40 dry hole to success is pretty good. Through the 80s and to the mid-90s in Alaska a "rank" exploration prospect probably was successful 5 percent of the time. The ability to find gas and oil is improving because recent exploration activities are in areas that have already been drilled and there is knowledge of the geology as well as better seismic surveys. He added that the model takes the evolution of exploration into account; however, this discussion is about new gas that would be brought into a pipeline and that rolled-in rates, expansion terms, and tariff structures are important features to explorers because the benefits to explorers are amplified through the kind of risk profile with which they have to deal when exploring for gas.

[3:41:37 PM](#)

REPRESENTATIVE WILSON expressed her understanding that this discussion pertains to the explorer's decision to take part in the second open season after the pipeline is built and the tariffs are known.

MR. BANKS indicated yes.

[3:42:57 PM](#)

MR. BANKS presented slide 4 and turned to the subject of AGIA. He explained that AGIA lays out a capital structure - TransCanada has offered a 75:25 debt to equity structure - and possible lower tariffs in expansion through rolled-in rates. He pointed out that the Federal Energy Regulatory Commission (FERC) will allow rolled-in rates if the rate is lower; if the subsequent expansion yields a rate that goes up, an incremental rate is charged. He acknowledged that a rebuttable presumption governs the Alaska pipeline and calls for rolled-in rates. Mr. Banks then stressed the importance of the requirement of expeditious and predictable expansion, and noted that TransCanada's application under AGIA is an agreement ahead of time that expansions will be offered every two years.

[3:44:24 PM](#)

REPRESENTATIVE SAMUELS pointed out that TransCanada also offers 60:40 for expansions "which explorers would also factor into their economics as a bad thing." Furthermore, TransCanada's rate of return would fluctuate between 14 and

22 [percent] which, again, explorers would factor into their economics. He opined that FERC will not allow TransCanada to have a 14 percent rate of return; in fact, FERC will choose the rate of return, the debt equity split, and "all of these things."

MR. BANKS agreed that FERC will determine whether or not the tariff will be the recourse rate on the pipeline. He opined that regarding the debt equity ratio, there is evidence that FERC has a broad view of what an appropriate ratio should be. He remarked:

We feel that this is, in a way, setting up the ... what at least remains the high side of a negotiated rate and one that does have some impact, we believe, a significant impact as I will demonstrate here, on what explorers will be looking at in their own economics.

REPRESENTATIVE SAMUELS emphasized that the only relevant point is the FERC ruling on the requests from TransCanada and others. He said, "You're not going to have a 'rest assured' exploration. ... Congress has laid out some rules and the FERC has laid out some rules, on what they will follow."

[3:48:22 PM](#)

MR. BANKS presented slide 5 titled "Tariff Provisions." He acknowledged Representative Samuels' comments and continued to explain that the expansions that have been modeled illustrate the benefits that rolled-in rates and 75:25 treatment of the tariff yield for the expansion shipper. The slide illustrated the benefit at the time of each expansion, assuming that the rolled-in rate treatment that would apply is not the rebuttable presumption, but rather the fact that rolled-in rates go down as a consequence of each expansion. On the other hand, if rates go up, only expansion shippers pay for the increase. The numbers take into account the expected monetary value which is the risk facing the explorers factored into the project. Similarly, a change to the debt equity structure from a 50:50 split to a 75:25 split has a fairly significant and much higher contribution to the explorer.

[3:50:27 PM](#)

CHAIR HUGGINS said, "As Representative Samuels mentioned 60:40 comes to play in later scenarios. Could you explain to us the rationale that the state had in accepting that in later dates?"

MR. BANKS responded that he would rather not speculate.

[3:51:04 PM](#)

MR. BANKS presented slide 7 and addressed the question of delay. There is a difference between whether explorers can anticipate that the pipeline sponsor will offer the opportunity to expand every two years versus explorers having to request an expansion. He opined that this difference affects the timing and the impact of discounting as illustrated by the graph on slide 8. Mr. Banks presented slide 9 titled "Prospect Economics" that further illustrated the impact of delay on a prospect over a period of eight years at a 15 percent rate of return. He concluded that much of the economic benefit of the project will occur because the state anticipates a more robust, vigorous, and diverse exploration and production industry on the North Slope as a consequence of an AGIA gas pipeline.

[3:53:19 PM](#)

REPRESENTATIVE COGHILL voiced his expectation that the exploration with the project under the AGIA license would be robust; however, under the Denali project, regarding the exploration model, it seems that prior to open season there would be interest into leasing and other acquisition issues. He asked how the state would deal with that part of the work load and specifically, whether the proposed license holder would get preferential treatment from the department or would others searching for leases and land improvements outside of AGIA [be served]. He opined that if the license and the Denali project go forward, "a lot of things are going to get ratcheted up." Representative Coghill asked, "How do you see that working in your department?"

MR. BANKS reminded members that the inducements would only apply to those producers making commitments in the initial open season. The Division of Oil and Gas will be developing a refinement to the way value for royalties are paid that is more predictable and does not involve constant readjustment. The present terms in the leases have always been a bone of contention between the state and the industry. In addition, the inducement can be offered to change how the state takes royalty-in-kind. Further, if there is more interest in leasing and from lessees that want to combine their land positions into units, create units, and expand existing units, that will become a major effort. However, he assured the members that the treatment of any lessee, in those instances, will be the same whether it is the Denali project or the AGIA project.

REPRESENTATIVE COGHILL observed that granting of the license is a commitment, but he said that he does not want all of the resources of the DNR to be sequestered by one particular project.

[3:57:09 PM](#)

REPRESENTATIVE KERTTULA asked whether there was discussion about creating an entity like the [Joint Pipeline Office (JPO)] to facilitate "one stop shopping" for interaction between the agencies.

MR. BANKS related that AGIA calls for a coordinator who would presumably work under the governor's office. He confirmed that his staff has discussed not just coordinating permitting, but managing the commercial relationship between TransCanada and the state without affecting the other responsibilities of the Division of Oil and Gas. He stated that "AGIA has demonstrated that we can suck the life out of my division, to the detriment to a lot of other things that really need to be done." Mr. Banks indicated that the DNR has begun to address that situation.

[3:58:56 PM](#)

CHAIR HUGGINS announced the schedule for public testimony on June 14, 2008.

[HB 3001 and SB 3001 were heard and held.]

ADJOURNMENT

There being no further business before the committees, the House Rules Standing Committee Subcommittee on AGIA and the Senate Special Committee on Energy meeting was adjourned at [3:59:54 PM](#).