

**ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY**

March 10, 2009

3:05 p.m.

MEMBERS PRESENT

Representative Bryce Edgmon, Co-Chair
Representative Charisse Millett, Co-Chair
Representative Nancy Dahlstrom
Representative Kyle Johansen
Representative Pete Petersen
Representative Chris Tuck

MEMBERS ABSENT

Representative Jay Ramras

OTHER LEGISLATORS PRESENT

Representative Cathy Engstrom Munoz

COMMITTEE CALENDAR

PRESENTATION(S): SOUTHEAST ALASKA INTERTIES,
BY ROBERT VENABLES, SOUTHEAST CONFERENCE

-HEARD

PRESENTATION(S): COOK INLET NATURAL GAS,
BY ED KERR, ARMSTRONG OIL AND GAS COMPANY

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

ROBERT VENABLES, Energy Coordinator
Southeast Conference (SEC)
Juneau, Alaska

POSITION STATEMENT: Gave a PowerPoint presentation on Southeast Alaska Interties.

REPRESENTATIVE CATHY ENGSTROM MUNOZ
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Asked questions during the presentation by Mr. Venables.

ED KERR, Vice President for Land and Development
Armstrong Oil & Gas
Denver, Colorado

POSITION STATEMENT: Gave a presentation regarding Cook Inlet natural gas.

ACTION NARRATIVE

CO-CHAIR CHARISSE MILLETT called the House Special Committee on Energy meeting to order at 3:05 p.m. Present at the call to order were Representatives Johansen, Petersen, Tuck, and Millett. Representatives Dahlstrom and Edgmon arrived as the meeting was in progress. Representative Munoz was also in attendance.

PRESENTATION(S): SOUTHEAST ALASKA INTERTIES, BY ROBERT VENABLES, SOUTHEAST CONFERENCE

CO-CHAIR MILLETT announced that the first order of business would be a presentation on Southeast Alaska Interties by Robert Venables, Energy Coordinator, Southeast Conference.

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ROBERT VENABLES, Energy Coordinator, Southeast Conference (SEC), informed the committee Southeast Conference is a private membership organization that

brings together the communities, municipalities, and businesses throughout the region of Southeast Alaska. It is one of seven Alaska Regional Development Organizations (ARDORs), is a Federal Economic Development District (EDD), and is the USDA Resource Conservation and Development (RC&D) Council for the region. Southeast Conference's mission statement is to undertake and support activities that promote strong economies, healthy communities, and a quality environment in Southeast Alaska. He noted the causes embraced by SEC include tourism, timber, fisheries, health care, transportation, and energy. The mission statement of the SEC Energy Committee is: To reduce, to the maximum extent possible, the use of diesel as a primary fuel source for the generation of electricity. He noted that studies over the past eighty years have shown Southeast has a plethora of hydroelectric resources to develop. Furthermore, these resources can be connected through a grid system and shared throughout the region. The program goal for the SEC Energy Committee is to reduce dependence on fossil fuels and lower costs to rate payers. This will be accomplished by working with member communities to develop the infrastructure that is needed to complete the regional grid. Mr. Venables advised hydropower is the best resource to be utilized in this region. The SEC Energy Committee has been working on an energy plan for the region since 1997-1998. In 2000, the Acres Report was recognized by Congress and up to \$384 million was authorized for the Southeast interties. Because of its standing with the state and federal governments, SEC has been able to partner with the Denali Commission, USDA Rural Development, and with the state legislature to tackle energy issues. Mr. Venables relayed the Kake/Petersburg intertie and the Reynolds Creek project are approaching construction, and the Swan Lake/Tyee intertie is nearing completion. He explained the purpose of each of the interties is to provide lower cost power to smaller communities, especially those using 100 percent diesel fuel, and

those that are approaching the maximum capacity of their existing hydro systems. As the grid system develops, it allows the connection of resources on a regional basis, so that as the intertie goes from point to point, power generation from areas of low population is picked up. The production of surplus energy will lower rates, thereby encouraging the development of economic ventures such as mining, or a technical-based industry. In addition, there would be opportunities along the grid for the development of biomass, tidal, geothermal, and other future sources of energy.

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MR. VENABLES opined the intertie will allow Alaskans to maintain "quality of life" and will support the development of other renewable sources of energy that can then be sold into the line. He said hydro power is Southeast's "bullet line." Slide 7 listed identified hydroelectric sites in the region that have the potential of producing a total of over 339 megawatts of power. Slide 8 was a map that showed the location of the existing and potential hydro plants that are needed to provide power to the growing population centers of Sitka, Ketchikan, Wrangell, and Petersburg. Mr. Venables warned against letting the opportunity to develop renewable resources go by if oil prices fall, and praised the legislature's commitment to renewable energy. He presented a series of maps that pictured the vision of the intertie, but cautioned that as costs escalate for certain portions of the submarine cable, the development of certain legs may be delayed. He stressed that the number one priority for SEC is to facilitate the intertie project in Kake. Kake has a dire need for improvements in transportation and energy; in fact, the electricity rates there are 63 cents per kilowatt hour. This high rate has resulted in the closing of businesses, the loss of population, and in social difficulties. Southeast Conference continues to work in Kake with local municipalities,

utilities, and multiple governmental agencies, including the Department of Transportation & Public Facilities (DOTPF), on a northern route for a road between Kake and Petersburg that will meet the needs of transportation and energy.

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MR. VENABLES said there will soon be a determination of the best route; in fact, the reason to co-locate the road and the intertie is to reduce environmental impact, the cost of development, and the cost of maintenance. Slide 12 was of Prince of Wales Island and illustrated an intertie system with a sub [marine] unit. The island will have a full build-up when the system continues to Naukati and Coffman Cove; all communities will be connected except for Whale Pass. Slide 13 showed the northern end of Lynn Canal with the connections between the communities of Skagway, Haines, and Klukwan. In this instance, two utilities are working together with an interconnected grid. Mr. Venables turned to the future and indicated SEC will be looking for construction funds for the Kake project and will be working with Haida Corporation to advance the Reynolds Creek project. In addition, every community has a project, whether it is municipal or regional, and SEC will continue to advance each project in its time. Studies of alternative energy sources will continue, as will the consideration of short-term "band-aids" such as expansion of the PCE program, and long-term solutions such as hydro and interties. Also, SEC will watch the proposed unification of the utilities in the Railbelt for ideas that can be used in Southeast. He thanked the legislature for funding the Alaska Renewable Energy Fund, that provided grants for Southeast in the amount of \$16,956,187; however, there is much left to be done to complete the Southeast interties.

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REPRESENTATIVE PETERSEN asked whether the newest in "smart technology" was being used in the construction of the interties.

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MR. VENABLES observed a lot of the equipment in Southeast Alaska is antiquated, especially the diesel generated infrastructure; however, the upgrades are in step with new technology as much as possible and, in the future, delivery systems will be cheaper for the intertie.

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REPRESENTATIVE CATHY ENGSTROM MUNOZ, Alaska State Legislature, asked whether any funds will be available to match the Alaska Energy Authority (AEA) authorization in the amount of \$380,000,000.

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MR. VENABLES advised state funds can be used as a match, as well as the considerable local investment that is made by private utilities.

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REPRESENTATIVE MUNOZ asked whether the SEC is working with the Congressional delegation on this issue.

[3:26:56 PM](#)

MR. VENABLES said yes. The SEC communicates with the Congressional delegation so they are aware of its program, community needs, and the resources available to assist the delegation. As a federal agency of standing, SEC is prepared to receive guidance and advocate for the region.

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REPRESENTATIVE MUNOZ further asked whether any of the money that has been authorized has also been appropriated.

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MR. VENABLE confirmed some appropriations have gone to Greens Creek Mining Company; however, about \$60 million is still available to be appropriated for Southeast intertie development.

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REPRESENTATIVE MUNOZ referred to the "Southeast governance model" and asked whether SEC is working with other entities, such as Tlingit and Haida and other private developers, to promote intertie connections.

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MR. VENABLES explained the governance model is a new item to SEC; in fact, it will be introduced by AEA next week. However, there is already a similar model that covered a portion of the region in the Southeast Alaska Power Agency (SEPA) - formerly the Four Dam Pool Power Agency.

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REPRESENTATIVE TUCK asked who will manage the Southeast intertie after completion.

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MR. VENABLES advised the utilities currently have ownership; for example, a portion of Greens Creek is

under the Kwaan Electric Transmission Intertie Cooperative, Inc. He remarked:

Right now, like the build outs, AP&T, they've all been split in their own system in certificated areas, so we really have not joined a regional ... grid development that's become an issue yet. And I think that's what is going to be brought to the table as we develop the intertie, especially over to Kake, because that's going to have to be decided, how's that line going to be owned and operated. Right now we've got the Kwaan agency that is capable, but it could very well be SEPA as well.

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CO-CHAIR MILLETT asked about the importance of co-locating roads [and interties] and whether there have been problems.

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MR. VENABLES acknowledged the difficulty DOTPF has building roads in the region. Although there is full support for the Kake intertie, there are reservations about road development. Construction of a roadbed to open a corridor for utility work allows for easier construction and maintenance of the intertie and also encourages economic development and commerce; however, there are not many successful examples except for the logging roads on Prince of Wales Island. He opined that the existence of successful logging "opened up some roads which then allowed for the interties to be built. ... So Prince of Wales Island would be the closest answer to your question to see how you could both develop roads and energy corridors ... and let the communities build and develop in their own areas instead of just urban."

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CO-CHAIR MILLETT asked whether there are estimates for each project on the additional cost to build an intertie where there is no access by road.

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MR. VENABLES said he was unsure; however, the Swan-Tyee intertie project encountered very challenging terrain. He deferred the question to Mr. Carlson.

3:34:37 PM

REPRESENTATIVE MUNOZ asked whether the power rights-of-way have been designated in the Tongass National Forest Land Management Plan (TLMP).

3:34:56 PM

MR. VENABLES advised most of the corridors have been identified in the Southeast Alaska Transportation Plan (SATP). The SEC is meeting with DOTPF to discuss integrated corridor development for Kake, Pelican, Hoonah, and Baranof Island. Although most primary utility corridors have been identified, more "corridor work" is being pursued by tribal governments.

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REPRESENTATIVE MUNOZ asked whether the corridors are only on state land.

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MR. VENABLES explained the Tongass forest is federal land, but the state has obtained the rights-of-way. Federal agencies such as the USDA Forest Service, the Environmental Protection Agency (EPA), and the U.S.

Army Corps of Engineers (USACE) are also involved when projects are proposed for this land.

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REPRESENTATIVE MUNOZ expressed her understanding that rights-of-way for the development of "lines" were required to be designated in the TLMP.

MR. VENABLES said he would confirm that for the committee.

[3:36:44 PM](#)

REPRESENTATIVE PETERSEN asked whether there may be money available through the [federal] stimulus package.

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MR. VENABLES said the stimulus package has very little application to the development of hydro interties in Alaska. Part of that will depend on how the Department of Energy (DOE) interprets the law; however, at this time the grids seem to apply to the grid across the contiguous states. Furthermore, the funds directed to the development of renewable energy are not available for hydro.

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CO-CHAIR EDGMON observed the total planned capacity of all of the hydro sites is 339 megawatts (MW) and asked whether there is enough demand for that much power.

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MR. VENABLES noted that not all of the projects will be developed. An updated integrated resource plan (IRP) is needed to "point the way" to the most economically viable projects. He opined the projects closest to the

grid will be developed first such as Whitman Lake and Mahoney Lake in Ketchikan, and Triangle Lake in Metlakatla. All of the projects listed on Slide 7 are far in excess of the demand for electricity in the near future.

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CO-CHAIR EDGMON asked what the present electrical demand is for Southeast communities.

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MR. VENABLE advised the combined Southeast communities are now "in the 100, 120 megawatt range." The legislation proposed by Senator Stedman highlights the projects that are necessary. Slide 7 merely identifies the location of all of the potential sources for hydroelectric power.

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REPRESENTATIVE JOHANSEN asked Mr. Venables to describe the responsibilities of the energy coordinator.

[3:41:52 PM](#)

MR. VENABLES said each of the utilities throughout the region is generating power to the best of its ability. As the energy coordinator, he works with all of the utilities as a group and has formed a technical advisory group within the energy committee. The energy committee meets regularly with a core working group of the Southeast utilities, and with tribal organizations and private power producers to "network on a very extensive basis."

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REPRESENTATIVE JOHANSEN observed there are estimates for the Swan-Tyee project on the difference in cost when there is a road; in fact, there is a huge difference when road access is available for maintenance and operation. He referred to [slide 8] that showed Kake's location in the center of Southeast and asked how important the connection to Kake is in the overall incremental build-out of the intertie system connecting power from north to south.

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MR. VENABLES acknowledged the importance of the connection, although the immediate goal of the intertie is to service the needs of the community of Kake. Southeast Conference has instructed the contractor to construct the line to the capacity that can be utilized as part of the overall intertie, even though it likely will be energized at half of that capacity. This plan is mindful of the overall system, but strives to build and operate the line at an "effective" cost.

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REPRESENTATIVE JOHANSEN asked whether an entity such as Central Council Tlingit & Haida Indian Tribes of Alaska (CCTHITA) could manage the operation of the intertie.

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MR. VENABLES opined that question will be answered through public process and deliberation; however, a model in Southeast does exist in the Kwaan power agency that is set up with partners and participants as an oversight body. He suggested that the Alaska Railbelt Electrical Grid Authority (REGA) report may provide guidance for Southeast Alaska on how utilities can decide how assets should be developed and operated.

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REPRESENTATIVE JOHANSEN asked whether the aforementioned is a preferable model to [using] an organization with other interests and duties.

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MR. VENABLES assured the committee that SEC is not looking to create more governing agencies, but to find the best and most efficient manner [of governance] for the public benefit.

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REPRESENTATIVE JOHANSEN asked whether SEC has an official position on whether the Southeast Alaska interties and facilities should be built before the construction of a connection to British Columbia (AKBC Intertie) that would result in the sale of surplus energy on the national grid.

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MR. VENABLES indicated SEC supports the concept of the AKBC Intertie and its benefits; however, the immediate need is in Southeast communities such as Kake, Angoon, and Hoonah. A line to Canada will not help them, in addition to the fact that the infrastructure in British Columbia does not exist. He stressed SEC's efforts are focused totally on Alaska communities.

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REPRESENTATIVE JOHANSEN observed mines in British Columbia may be the future industrial users of excess power from Southeast. He then asked for a matrix of the PCE funding that would be displaced by the [state's] investment in the construction of the intertie.

3:50:38 PM

MR. VENABLES gave a PowerPoint presentation showing slides from the construction of the Swan-Tyee intertie. The slides showed the construction corridor, the Tyee Lake powerhouse, and a housing camp on a barge 70 miles north of Ketchikan. Mr. Venables noted the project is on schedule and fully funded; in fact, the project is scheduled to be energized in November.

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REPRESENTATIVE DAHLSTROM asked how much revenue was earned from assembling barges for the project.

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MR. VENABLES said he was unsure and would provide that information to the committee.

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REPRESENTATIVE JOHANSEN expressed his appreciation for the work Mr. Venables has done. He opined energy plans are most successful if developed regionally as the state is large and very different. In addition, Haines, Skagway, and Klukwan are an example for the rest of the state of communities that have jointly developed and shared a source of energy.

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REPRESENTATIVE PETERSEN asked whether there was the potential to export excess power from these projects.

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MR. VENABLES affirmed that the possibility exists; however, if there were excess power, the first priority

would be to support local industry and create local jobs and revenue.

PRESENTATION(S): COOK INLET NATURAL GAS, BY ED KERR,
ARMSTRONG OIL AND GAS

3:59:54 PM

ED KERR, Vice President for Land and Development, Armstrong Oil & Gas, informed the committee Armstrong Oil & Gas is a privately held, independent oil and gas company that has been in business in a large part of the U. S. for 23 years. The company's initial work in Alaska began ten years ago with a feasibility study that was followed by the acquisition of 360,000 acres and the drilling of eleven "wildcats" on the North Slope. The wells showed some success at Ooguruk Island and at the Nikaitchuq project, both of which are now being further developed by other companies. About three years ago, his company studied the possibilities and challenges of doing business in the Cook Inlet. In spite of the significant issues associated with developing a "reasonable" gas supply, Armstrong began work on the North Fork Unit. The North Fork Unit was originally drilled by Unocal Oil Company in 1965 and then sat idle for 40 years because, although some gas was found, Unocal was looking for oil. Mr. Kerr advised Armstrong acquired all of the rights, and then drilled a second well in the North Fork Unit and found gas. He opined the gas from this well could provide part of the solution to the shortage of gas in Cook Inlet. At this point, the company has begun a preliminary dialog with various utilities about a gas contract and is also meeting with the Regulatory Commission of Alaska (RCA). Mr. Kerr described the Cook Inlet as an oil basin and pointed out almost all of the production has been from oil and gas that was found in the '60s and '70s, when there was no market for gas. Over time, the wells have fallen into a overall decline of 15 percent to 24 percent,

predominately due to a lack of drilling. To explain the lack of drilling, he noted Armstrong has found that the cost of drilling a comparable well in the Cook Inlet is substantially higher than in some Lower 48 basins. Unfortunately, the service companies do not have a huge infrastructure located within the Cook Inlet and there are a limited number of services available. "When you have that type of limited number of people, it doesn't foster competition ... [and] ultimately the costs go up," he said. Therefore, the cost to drill and complete the work associated with the wells is higher when compared to other Armstrong operations. He compared the San Juan basin in northwest New Mexico, and the Big Horn basin in northwest Wyoming, that are basins of similar geographic size to Cook Inlet. Mr. Kerr pointed out that the Cook Inlet productivity to date is 7.6 trillion cubic feet (tcf) and 1.3 billion barrels of oil; the Big Horn productivity to date is 2.4 tcf and 3.1 billion barrels of oil; the San Juan productivity to date is 41.5 tcf and 380 million barrels of oil. In further comparison, in the San Juan there were 984 wells drilled in 2007; in the Big Horn there were 100 wells drilled in 2007; and in the Cook Inlet there were 7 to 14 wells drilled. He concluded that because the Cook Inlet does not have as much drilling activity, costs remain high. In addition, the San Juan has 44,744 completed wells, the Big Horn has 12,878 completed wells, and Cook Inlet has 13,012 completed wells. He opined the Cook Inlet is under drilled and advised there are unknown opportunities there. Wells have not been drilled there because the "majors" held the leases and controlled the level of activity. In addition, there are few independents working in the Cook Inlet and the vast majority of wells are drilled by independents. Mr. Kerr stated Armstrong feels it can make a difference in the Cook Inlet; in fact, it will present the successes and challenges of its plans to the RCA. The potential to develop this field can make a difference in the gas supply in the Cook Inlet.

Armstrong can also make a difference in the economy of the region as in the course of drilling the North Fork Unit well, the company employed about 250 people working for 80 different Alaskan vendors. If granted a gas contract and a pipeline, there is the potential for his company to drill many wells. He then pointed out that newer technology, such as horizontal drilling, is being utilized in the Lower 48, but is not being fully utilized in Cook Inlet.

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MR. KERR further explained that other independents are not willing to come to the Cook Inlet due to the concern that they will not get a reasonable return on their investment; however, Armstrong feels it can overcome this challenge. If its negotiations are successful it will drill additional wells; however, the contracts must insure the "reasonable chance of making a return on investment." He advised his company has already taken some risks in drilling one well and acquiring the asset and, from a business perspective, it needs an opportunity to begin to recoup its investment. Mr. Kerr said he wanted the committee to know Armstrong's intent on being a part of the solution in Cook Inlet, as long as it can enter into a prudent business agreement.

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REPRESENTATIVE DAHLSTROM asked whether Armstrong used its own rig on the well that was drilled.

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MR. KERR said his company used a leased Aurora rig that was in Alaska. In further response to Representative Dahlstrom, he said for subsequent drilling the company would first "try to look within rigs that are located

in the Cook Inlet." This is a dynamic business and rigs in the Cook Inlet can be taken up quickly.

[4:17:34 PM](#)

REPRESENTATIVE DAHLSTROM described the existing situation with drilling rigs.

[4:18:12 PM](#)

MR. KERR added that the Cook Inlet well was drilled at 9,100 feet. A comparable well in west Texas would cost between 400 percent and 600 percent less: A bigger infrastructure and drilling more wells will mitigate costs.

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REPRESENTATIVE PETERSEN asked how long a pipeline is needed to connect the North Fork Unit to existing facilities.

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MR. KERR said the North Fork Unit is approximately nine miles due east of Anchor Point; depending on the route, eighteen to twenty-nine miles of pipeline would be needed.

CO-CHAIR MILLETT asked whether Armstrong has applied for exploration credits on the drilling in Cook Inlet.

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MR. KERR said the company applied for credits but has yet to receive them.

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CO-CHAIR MILLETT restated the challenges to Cook Inlet gas development and asked what is Alaska's role "in easing some of those [challenges] ... in the marketplace like that?"

[4:21:48 PM](#)

MR. KERR suggested that independent oil and gas companies must have an opportunity to get a return on investment; in fact, the challenge in the Cook Inlet is to get a gas contract that recognizes the potential costs and overruns. This situation is keeping independents out of the Cook Inlet. Historically, drilling companies have pulled out and not many wells have been drilled. He advised the success of one company will encourage others to explore, as happened in the Haynesville shale area of Louisiana.

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CO-CHAIR MILLETT observed shale oil development is in competition with Alaska. She asked for the amount of Armstrong's investment in the first well.

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MR. KERR estimated a gross investment of \$8 million to \$10 million for the first well, without exploration credits.

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REPRESENTATIVE TUCK referred to the geological "de-risk" in Louisiana and asked whether an independent made a discovery or if there was another factor.

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MR. KERR stated Chesapeake Energy Corporation, an independent oil company, utilized horizontal technology and developed a very successful well.

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CO-CHAIR MILLETT thanked the presenters.

[4:27:21 PM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 4:27 p.m.