

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

October 27, 2010
11:07 a.m.

MEMBERS PRESENT

Representative Bryce Edgmon, Co-Chair
Representative Charisse Millett, Co-Chair
Representative Kyle Johansen
Representative Pete Petersen

MEMBERS ABSENT

Representative Nancy Dahlstrom
Representative Jay Ramras
Representative Chris Tuck

OTHER LEGISLATORS PRESENT

Representative Carl Johnson
Representative Paul Seaton

COMMITTEE CALENDAR

ENERGY REQUIREMENTS FOR PROPOSED MINES

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

LORNA SHAW, Executive Director
Council of Alaska Producers
Anchorage, Alaska

POSITION STATEMENT: Reviewed presentation entitled "The Energy Needs of Alaska's Metal Mining Industry."

JAMES FUEG, Technical Manager
Donlin Creek LLC
Anchorage, Alaska

POSITION STATEMENT: Provided a presentation on the Donlin Creek project, its energy needs, and the steps taken to achieve those needs.

JOHN SHIVELY, CEO
The Pebble Partnership
Anchorage, Alaska

POSITION STATEMENT: Provided a presentation entitled "Pebble Prospect."

KARL HANNEMAN, Project Manager
Talon Gold Alaska, Inc.
Fairbanks, Alaska

POSITION STATEMENT: Provided a presentation entitled "Money Knob Gold Project Livengood, Alaska Future Energy Needs."

DAN GRAHAM, PE, Project Manager
Chuitna Coal Project
Anchorage, Alaska

POSITION STATEMENT: Provided a presentation on the Chuitna Coal Project.

LORALI CARTER, External Affairs Manager
Wishbone Hill Mine
Usibelli Coal Mine, Inc.
Palmer, Alaska

POSITION STATEMENT: Provided a presentation of the Wishbone Hill Project.

ACTION NARRATIVE

[11:07:40 AM](#)

CO-CHAIR CHARISSE MILLETT called the House Special Committee on Energy meeting to order at 11:07 a.m. Representatives Peterson, Johansen (via teleconference), Edgmon, and Millett were present at the call to order. Also present were Representatives Seaton (via teleconference) and Johnson.

Energy Requirements for Proposed Mines

[11:07:56 AM](#)

CO-CHAIR MILLETT announced that the only order of business would be to discuss energy needs for large-scale mines and proposed mines in the state, which will require vast amounts of energy. The committee is seeking possible public-private partnerships for energy needs of the state.

[11:08:49 AM](#)

LORNA SHAW, Executive Director, Council of Alaska Producers, began by informing the committee that the Council of Alaska Producers is the trade association for the large-scale hard rock mining operations in Alaska. The state has the following five large metal mines in operation today: Red Dog, Fort Knox, Pogo, Kensington, and Greens Creek. There is one operating coal mine, Usibelli, in the state as well as two advanced exploration metal projects, Donlin Creek and the Pebble Project. There are also two advanced exploration permitting coal projects, Chuitna Coal and Wishbone Hill.

[11:10:07 AM](#)

MS. SHAW then moved on to the Red Dog Mine, which is located on the Seward Peninsula. The Red Dog Mine is one of the top producers of lead and zinc in the world. The Red Dog Mine uses 43 megawatts of power, all of which it generates on site as there is no grid with which it can connect. To generate all of its power, the Red Dog Mine uses nearly 16 million gallons of fuel annually. The waste heat from that power production is used to heat the mine's space. Additionally, the mine operations and port haulage use about 1.5 million gallons of fuel for vehicles as well as about 150,000 gallons of jet fuel. She then turned the committee's attention to the Fort Knox Mine, which is a large-scale open pit gold mine, conveniently located about 25 miles outside of Fairbanks. The Fort Knox Mine is the largest customer of Golden Valley Electric Association (GVEA), which is the local electric utility in Fairbanks. The Fort Knox Mine uses about 33 megawatts of power from GVEA, which amounts to a cost of \$3-\$3.5 million. The amount of power Fort Knox Mine uses amounts to about half of the power GVEA produces while in the winter it's about one-third of the power GVEA produces. She noted that for the mining operations Fort Knox Mine uses 10.5 million gallons of fuel annually for the vehicles and [facility] heat. The 2010 budget for fuel is about \$30 million. Ms. Shaw then moved on to the Greens Creek Mine, which produces lead, zinc, silver, and gold. Since there was originally no grid for Greens Creek Mine to hook into, it did all on-site power generation until 2006. In 2006, Greens Creek Mine was able to connect with the Alaska Electric Light & Power (AEL&P) Intertie to provide hydro-power. In September 2009, the Dorothy Lake Project came online, which she attributed to Greens Creek's commitment to purchase the power from the Dorothy Lake project. At this point, Greens Creek Mine receives about 95 percent of its power from the grid and it uses about 7.5 megawatts of power. With regard to fuel used at the Greens Creek Mine, it

currently uses 1.4 million gallons whereas when it had to produce all of its power on site, it used 6 million gallons of fuel annually. Ms. Shaw moved on to the Pogo Mine, which is now Alaska's top gold producer. The Pogo Mine is located between Fairbanks and Delta Junction with a 50-mile long private road to the mine. The Pogo Mine installed a power line from the highway to the mine site. The Pogo Mine uses about 10 megawatts of power from GVEA. Both Pogo Mine and Fort Knox Mine pay about \$0.11 per kilowatt hour, which isn't very much in Alaska whereas nationally it would be considered very high. Therefore, Ms. Shaw encouraged the committee to have a larger view of mining investment in Alaska as it's being compared to other locations in the world for energy generation. The Pogo Mine uses almost 2 million gallons of fuel for its vehicles and operations and 1 million gallons of propane for heat in the winter. Ms. Shaw then directed attention to the Kensington Mine, which uses six 1.2 megawatt gensets to produce its power. The mine operations for Kensington Mine use approximately 3 million gallons of fuel annually. She said that the intent with the aforementioned information is to point out how energy intensive the mining industry is, particularly in Alaska. All of the large-scale metal mines in Alaska have mills and require a great deal of electricity to process the ore. Therefore, affordable power and fuel is critical to the development of mines in Alaska. In conclusion, Ms. Shaw highlighted that although mining is energy intensive, it provides [the raw materials] for many items used in everyday life. She opined that it would be nice to bring some of these items to market from Alaska.

[11:15:58 AM](#)

JAMES FUEG, Technical Manager, Donlin Creek LLC, began by informing the committee that the Donlin Creek Mine is located in Southwest Alaska, 50 miles from the regional hub of Aniak and 12 miles north of the community of Crooked Creek on the Kuskokwim River, which is a very remote part of Alaska. In fact, the nearest roads are about 300 miles away on the Railbelt. There are no regional power infrastructure or power generation facilities capable of serving any kind of industrial load, and therefore the project anticipates building that infrastructure should the project move forward. He then related that the Donlin Creek project is a partnership between Barrick Gold and NovaGold, two mining companies. Donlin Creek LLC operates under a lease agreement with the Calista Corporation, which is the owner of the subsurface deposit. The project itself would be largely located on Native corporation lands. Donlin Creek LLC has a separate service use agreement with the Kuskokwim

Corporation, which represents the local villages. Mr. Fueg characterized Donlin Creek Mine as a large gold resource that totals more than 30 million ounces and offers a potential mine life of more than 25 years. The Donlin Creek Mine could produce significant regional infrastructure, which would be beneficial to the mine as well as the larger area. Most importantly for that part of the state, the Donlin Creek Mine offers the potential for a significant amount of private industry jobs, including up to 3,000 jobs during the three- to four-year construction phase and 800 or more jobs during the 25-year plus life of the mine. He explained that Donlin Creek will use a multi-stage process to extract the gold from the rock, including crushing and grinding the ore. The grinding circuit alone will require three motors, each of more than 25,000 horsepower to power the various mills. He stated that there are challenges associated with supplying enough energy as well as managing that energy and load. The total electrical load for Donlin Creek would be around 130 megawatts, which is similar to the load the Fairbanks area currently utilizes during the winter. The peak electrical load is about 152 megawatts. Additionally, Donlin Creek will require a large volume of diesel fuel to power the fleet, which will be barged up the Kuskokwim River to the project site.

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MR. FUEG told the committee that over the years various energy options have been reviewed for Donlin Creek, including diesel-based generation supplemented by wind. He reminded the committee that diesel becomes very expensive when generating large volumes. Furthermore, to move that much diesel up the Kuskokwim River would require significant additional barging capacity on the Kuskokwim River. Another option that was reviewed was an electrical intertie to Nenana. The length of the line, about 400 miles, needed and the size of the load at the end and the size of some of the motors would require the construction of a DC line, which is expensive and has limited benefits to potential third party users. Other options reviewed in the Donlin Creek area include using peat to power a boiler to generate electricity, hydro electric, nuclear, coal, and biomass. The current focus is on running a gas pipeline to the site in order to meet the mine's energy needs. The gas pipeline option would result in a route from Cook Inlet through the Alaska Range to the project site, which would total 325 miles with no infrastructure. The gas pipeline project alone would be a significant undertaking with its own challenges beyond those of the mine. The current concept would be a buried 12-inch

steel pipeline for gas only. He explained that the goal would be to construct the aforementioned pipeline using temporary access. He then directed attention to the slide entitled "Pipeline Route," which illustrates the route. The first portion of the route would be exclusively on state lands and then it would move into Alaska Native Claims Settlement Act (ANCSA) land and then into a patchwork of Bureau of Land Management (BLM) and state lands as the route comes closer to Donlin Creek. Therefore, to complete the project, rights-of-way from all three of the aforementioned groups would be required.

MR. FUEG related that at this point, he anticipates that the project will require approximately 25 million cubic feet of gas per day in order to generate electricity. The demand could increase if additional ways to offset the use of diesel by electricity are found. One way to achieve the aforementioned is to use electric shovels rather than diesel shovels, which is being evaluated. The use of electric shovels would result in an about 10 percent reduction in the diesel needed and an equivalent increase in gas for the project. "To put that in perspective, that would represent about 10 percent of the Cook Inlet demand without the large industrial users, such as the now closed Agrium plant or the LNG export facility," he said. He specified that it amounts to a constant year-round load with no seasonal variation. Therefore, it would offer some benefits to Cook Inlet because it would help smooth out the seasonal fluctuations in demand, which would potentially make it more attractive to those evaluating options for providing additional gas resources in Cook Inlet. Currently, Donlin Creek is exploring multiple options for sourcing gas and using fairly conservative pricing in the assessment of the pipeline option as well as the feasibility assessment. The belief, he opined, is that the aforementioned would cover any potential sources of gas including LNG pipeline gas.

MR. FUEG turned to the project schedule and related that Donlin Creek is currently evaluating the feasibility of the overall project. In fact, Donlin Creek recently completed a major field program this summer to collect all the feasibility level engineering and baseline environmental data that would be necessary to permit the pipeline. He anticipated completion of an updated feasibility study by the middle of next year. If the project is shown to be economically viable as well as technically and environmentally feasible and approved by both partners, the project would be taken to permitting in the fall of 2011. The mine and the pipeline, he highlighted, would be permitted as a single project. At this point, he anticipated a

multi-year process for completion of the environmental impact statement (EIS). Shortly after the permits are granted, construction would begin. Construction would take three to four years.

[11:24:38 AM](#)

CO-CHAIR EDGMON inquired as to how using conventional sources of energy, such as diesel, would impact the feasibility of the mine.

MR. FUEG stated that using a reasonable assumption of the price of gas, gas is cheaper than diesel. With regard to the viability of the project if diesel is barged up the Kuskokwim River, Mr. Fueg said it would depend upon the price assumptions one makes for diesel. For a project with a life of possibly 35 years, a small change in price of energy can have a large impact on the economics of the project. "It makes the project more challenging," he opined. In further response to Co-Chair Edgmon, Mr. Fueg explained that he has approached gas versus diesel by reviewing the differential between diesel and gas. The belief is that the differential between diesel and gas will only increase as time goes on, and therefore gas would make the project more attractive. Furthermore, he opined that gas will bring significant environmental and regional benefits over diesel. One of the concerns identified by communities is the barging of large amounts of diesel and the pipeline study is largely a reaction to that concern in order to find a better and more cost effective solution. Therefore, it's not a decision that's driven purely by the price of energy.

[11:28:08 AM](#)

CO-CHAIR MILLETT recalled that Harry Noah, the former project manager of the In-State Gas Project in DNR, was a proponent of linking the in-state gasline to Donlin. She asked if that's still part of the conversation.

MR. FUEG answered that Donlin Creek LLC has shared information with the folks working on the in-state line. He related that Donlin Creek LLC would be willing to purchase gas from anyone who has it available and the price is right. However, the Donlin Creek Mine has its own timeline and cannot afford to be dependent upon the schedule of another project, and thus Donlin Creek LLC will move forward with its plans. Still, [linking to the in-state gasline] would be beneficial to the project and help ensure that it moves forward.

11:29:29 AM

JOHN SHIVELY, CEO, The Pebble Partnership, began by informing the committee that The Pebble Partnership is a partnership between Anglo American and Northern Dynasty. The project is located about 200 miles southwest of Anchorage in the Lake and Peninsula Borough. The communities closest to the project are Nondalton, Newhalen, and Pedro Bay. He explained that the project is located about 85-86 miles from the west side of Cook Inlet, where a port will likely be constructed. Along the road to that port, there would most likely be a diesel line for fuel for vehicles. In terms of power, The Pebble Partnership is looking at several different options. Although the project is performing some testing for wind, it isn't enough to meet the needs of the project. At this point in the project, the needs of the project, although significant, aren't determined. Mr. Shively related the preference for natural gas on site, which means there would need to be a pipeline along the road corridor; the reason for which he attributed to obtaining a benefit from waste heat. The project needs power that's significantly cheaper than diesel. He related that there has been review of the mine receiving inexpensive power and that the communities closest to the mine would benefit. The Pebble Partnership has had preliminary talks with the state regarding whether or not it would make sense to run the natural gas or electrical transmission line to the western part of the region to the larger communities. The state has an interest in the aforementioned because it could achieve cheaper power to those areas, which would benefit the power cost equalization program. Mr. Shively acknowledged that the challenge with natural gas is from where to get it. If the large natural gas pipeline is built, the Pebble project could play a role in the economics of either the bullet line or a spur line. Furthermore, [the Pebble project] could impact the economics of deeper drilling in Cook Inlet. Mr. Shively related that although The Pebble Partnership prefers natural gas, it's willing to consider electrons that are available at a reasonable price. Therefore, the Pebble project could play a role in projects such as Chakachmna and Susitna. He noted that the CIRI oil gasification project and the oil map geothermal are of interest to the Pebble project. Absent any of the aforementioned options, the project would likely import LNG either to the port discussed earlier or the Nikiski export facility.

11:35:04 AM

CO-CHAIR MILLETT announced that the committee would now hear about the Money Knob Gold Project in Livengood.

KARL HANNEMAN, Project Manager, Talon Gold Alaska, Inc., informed the committee that Talon Gold Alaska, Inc. is a subsidiary of International Tower Hill. He pointed out that the Livengood Project is in the very early stages and thus the information regarding the project's power needs are projections. The project is located along the Elliot Highway, 70 miles north of Fairbanks. A significant gold resource, about 12 million ounces has been identified. The preliminary economic assessment shows compelling economics. Livengood will be an open pit mine and the topography and deposit are supportive of a large scale low-cost operation. Furthermore, there is favorable infrastructure in that it's a historic mining district with a network of local trails that are directly accessible off the paved Elliot Highway. Moreover, the project is adjacent to potential gas pipeline corridors. He related that the project is building an experienced development team in Fairbanks, which is moving the project rapidly through the pre-feasibility stage.

[11:37:19 AM](#)

MR. HANNEMAN showed the committee a slide that illustrates the topography at the deposit area, which has been identified by a large number of drill holes over the last number of years. Referring to slide 5 entitled "Livengood Hardrock History," he then informed the committee that back in 1914 in Livengood, placer gold was found, after which there was quite a lot of small scale prospecting in the area. The prospecting identified small veins and dykes that contained gold, although none of which were economic at the time and thus weren't pursued. Still, there was enough gold in the area that the hill was named Money Knob. Furthermore, over the years several major companies drilled and tried to identify the resource, which culminated in 2006 when International Tower Hill rapidly advanced the drilling rate and ultimately identified this substantive resource. He pointed out that since the mid 1980s when state geologists helped select the area for the Alaska Mental Health Trust, it has taken a couple decades to identify a substantive resource. The aforementioned is illustrative of the long lead times and steady exploration efforts required to actually recognize value from areas identified as having mineral potential. In fact, the state flew the area a decade ago to perform an airborne survey.

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MR. HANNEMAN directed attention to the chart on slide 6 entitled "Livengood Resource Growth." The chart on slide 6 illustrates the growth of drilling at Livengood. From February 2007 to June 2010, the resource has grown from almost 2 million ounces to over 12 million ounces. Although it's the early stage of trying to identify and understand the potential of this deposit, the pre-feasibility stage is expected to be complete by December 2011. Since the project hasn't yet been designed, the numbers presented today are very preliminary, he specified. Conceptually, if the project is a heap leach it would have a 10-15 megawatt energy requirement while a project with a large mill and a heap leach would have a 70-80 megawatt energy requirement. In response to a question, Mr. Hanneman clarified that megawatt is a rate of power consumption. On an annual basis, it would amount to about 500 megawatt hours.

[11:41:27 AM](#)

MR. HANNEMAN, referring to slide 9 entitled "Money Knob Potential Power Needs," related that although Talon Gold Alaska, Inc. will evaluate the purchase power with GVEA versus local self generation, it sees some significant benefits in purchasing power off the Railbelt grid. He opined that purchasing power from the Railbelt grid will have better reliability, offer source diversity with coal, gas, hydro, and wind that would help stabilize supply and price issues. If additional installed capacity is required to support Livengood and it becomes part of the Railbelt grid, then the infrastructure will be present to serve all of Alaska at the end of the mine life. The aforementioned is a significant advantage.

[11:42:31 AM](#)

MR. HANNEMAN, referring to slides 10-11, informed the committee that state efforts can make a difference in this project. For instance, if power is purchased from the grid, a 50-mile transmission line will need to be built. This transmission line would be similar to what was constructed for Pogo, but the alignments would be parallel to the potential gasline alignment and the existing TAPS alignment. A lot of environmental baseline studies have already been completed along the Fairbanks-Livengood utility corridor. Therefore, making that information available would be efficient in terms of time and resources. He noted that it would also be helpful [for the state] to support efforts that would lower the cost of energy on the Railbelt, including utility consolidation. He then encouraged long-term planning for low cost power on the grid.

Mr. Hanneman related that efforts to commercialize gas are a large factor [in this project]. If lower cost energy could be brought to Fairbanks and placed into the power generation system there, [this project] as well as all of Fairbanks would benefit. In fact, if the system were large enough, the entire Railbelt could benefit. Therefore, various efforts to commercialize the gas are being reviewed. In fact, one such effort is a small bore line that would parallel TAPS to which the state could contribute. He suggested support of efforts to produce low-sulfur diesel in Alaska for Alaska's own resources because low-sulfur diesel requirements will likely be in place by the time this mine is in production.

[11:45:21 AM](#)

REPRESENTATIVE JOHNSON asked if this project is meeting any obstacles from the state.

MR. HANNEMAN replied no, but noted that the process has only just begun.

REPRESENTATIVE JOHNSON suggested that perhaps the committee could assist with any obstacles that arise in the future, particularly because there's no need to duplicate existing information.

[11:46:56 AM](#)

REPRESENTATIVE SEATON, referring to slide 8, inquired as to what the determiner is for which kind of conceptual mine, heap leach only or a large mill and heap leach, would result.

MR. HANNEMAN answered that the Money Knob Gold Project is in the very early stages. In fact, it's a situation in which a substantive gold resource has been identified, but the engineering, including the preliminary engineering, which would result in a recommendation of the type of project to propose, has yet to be done. The pre-feasibility work will accomplish the aforementioned as it will engage a number of experts and engineers to perform the engineering. At this point, the project depends upon economics, gold recovery, gold recovery projections, cost estimates, and environmental factors.

REPRESENTATIVE SEATON clarified that he's trying to understand the difference in the two approaches: the heap leach only versus a large mill and heap leach mine.

MR. HANNEMAN informed the committee that the Fort Knox Mine recently permitted and constructed a heap leach adjacent to its large mill operation. On that heap leach, run of mine ore was placed rather than crushing it. Therefore, there's not a large energy requirement to grind rocks, which significantly reduces the power requirement associated with a heap leach. At this point, Mr. Hanneman said that Talon Gold Alaska, Inc. doesn't know if its ore is amenable to such large scale heap leaching without being crushed. The aforementioned would significantly impact the power requirements.

[11:50:02 AM](#)

REPRESENTATIVE SEATON, referring to slide 9, inquired as to the anticipated life of the mine.

MR. HANNEMAN noted that Talon Gold Alaska, Inc. put forth a preliminary economic assessment in August, which estimated a 21-year mine life. However, there will be review of ways in which to shorten that mine life in order to accelerate production, particularly since the company believes the resource has the potential to grow. Therefore, the mine life of Money Knob Gold Project is very uncertain. He informed the committee that GVEA has the capacity to install an additional turbine at its North Pole facility. If that additional turbine was installed to service the Livengood load, the mine would certainly have a life of more than 20 years. Furthermore, after the mine life, the additional turbine would be available to serve other Railbelt users. Mr. Hanneman opined that there's benefit, in terms of reliability, from being connected to the Railbelt and ultimately to utilize that infrastructure to provide power to others as opposed to a stand-alone gas-fired turbine at Livengood. He related that although Talon Gold Alaska, Inc. would like low-cost gas to be in the Interior, it may be best suited to where it's connected to everyone else.

[11:52:22 AM](#)

REPRESENTATIVE PETERSEN asked if any other minerals or micro minerals other than gold that might be marketable have been identified.

MR. HANNEMAN responded no, adding that Money Knob is primarily a gold deposit.

CO-CHAIR MILLETT then announced that the committee would turn its attention to the Chuitna Coal Project.

[11:54:41 AM](#)

DAN GRAHAM, PE, Project Manager, Chuitna Coal Project, acknowledged the public opinion of coal, global warming discussions, and state and national policies related to coal. Although coal projects aren't prevalent, the U.S. still generates just under 50 percent of its power from coal. Therefore, the question is why even consider coal now. He pointed out that LNG and crude oil prices have increased significantly in the past few years. The result has been that Pacific Rim countries seeking to expand their economies, which means increased power demands, turn to coal for power generation. He related that current export demand is anticipated to increase roughly 120 million tons over the next five years, at a minimum. Between the Railbelt and the Cook Inlet region, there is [in excess] of 2 billion tons of reserves of sub-bituminous coal, which is a low-sulfur product. This sub-bituminous coal is finding a place in the export market. He noted that Usibelli Mine has reached record years in exports over the last couple of years. "The demand now is stronger than it has been," he remarked. Mr. Graham opined that the Chuitna Coal Project is a worthy project as it's a great opportunity to monetize the resource and create jobs and business opportunities in the state while protecting the environment.

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MR. GRAHAM informed the committee that the Chuitna Coal Project is located on the west side of the Cook Inlet, about 14 miles from the village of Tyonek and 45 miles west of Anchorage. It's a proposed export coal project. The proposal currently in the permitting process is a 300 million ton reserve with a 25-year design life. He noted that since the workforce isn't available on site, a camp facility will be constructed for mine workers. A port facility will also have to be constructed for exporting the product and receiving goods at the mine. He explained that the port facility is proposed in the Kenai Peninsula Borough on the edge of Cook Inlet at which there will be a coal stock pile and the facilities for offshore unloading of deep draft ocean bound ships. There will also be an over-land conveyor, which will be at least 20 feet above the ground in order to avoid any barriers to wildlife or those who recreate in the area. The existing road system will be used to a point at which the remainder of the distance to the mine will be a private road. He noted that it's about six miles of existing road that will be upgraded for use and five to six miles of new road to reach the

mine. He related that the Chuitna Coal Mine is a conventional service mine operation with contemporaneous reclamation, similar to the operations in Healy.

MR. GRAHAM then turned to the power demand of the Chuitna Coal Project. Initially, the mine area will have a low electrical demand as most of the rolling stock is diesel-fired equipment. When a drag line is added, the electrical demand will grow to about 7-8 megawatts at the mine area. The mine facilities, the shop and a facility to crush the coal for shipment, will require a little over 2 megawatts of power. The aforementioned camp facility will require just over 1 megawatt of power. He noted that the aforementioned power demands are peak demands. The conveyor itself has a 1.5 megawatt peak demand, which is about one-fifth of what a conventional conveyor would require to transport the same material the same distance. At the port site, about 4-4.5 megawatts of power will be required to handle the stock pile, run the warehouse, and operate the ship loader. Therefore, total electrical demand during the initial construction and first few years of mining would be about 10 megawatts, which increases to 17-20 megawatts once a drag line is added. The aforementioned power would be received on an existing 24.9 kV line that passes through the port site and is operated by Chugach Electric Association. That line will be used for construction power and the temporary camp at the beginning of the operation. At the mine site, portable generators will be installed for the construction phase of the project. Once construction nears completion, permanent power will be supplied by a new six mile long 138 kV line from Chugach Electric Association's Beluga Power Station. When the line reaches the existing port site, Chugach has requested that the mine's line be tied into the existing 24.9 kV line. The aforementioned creates a loop in the system, which will increase the reliability of the system.

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MR. GRAHAM then turned to Chuitna's schedule. He informed the committee that the updated Supplemental Environmental Impact Statement (SEIS) documents have been submitted. He further informed the committee that Chuitna's working on the surface mine coal applications to reflect recent design changes. The next step will to go through the entire SEIS process as permit applications are submitted. Chuitna then anticipates permit decisions to be rendered in the next 18 months to 2 years. Depending upon the permit decisions and the market conditions, Chuitna will be prepared to make a construction decision. In

response to Co-Chair Millet, Mr. Graham confirmed that the construction decision will be made in 2012 or 2013.

CO-CHAIR MILLETT announced that the committee would now receive a presentation regarding the Wishbone Hill Project.

[12:03:33 PM](#)

LORALI CARTER, External Affairs Manager, Wishbone Hill Mine, Usibelli Coal Mine, Inc., began by informing the committee that the Usibelli Coal Mine (Usibelli) has been operating in Healy for nearly 70 years. In fact, the headquarters of the mine are located about 10 miles north of the entrance to the Denali National Park. Due to the increase in the export market this year, the mine will likely reach about 2 million tons of export. Usibelli serves the following 6 customers in Alaska: the Fort Wainwright Army Base, Eielson Airforce Base, Clear Airforce Station, and the University of Alaska Fairbanks. Usibelli's export customers are located in Japan, Chile, and South Korea. Ms. Carter then turned to coal, informing the committee that the U.S. has 27 percent of the world's coal reserves and Alaska has 50 percent of the U.S. coal reserves. Given Alaska's current electric consumption, Alaska has about 1,000 years of reserves if coal were used to generate electricity. She emphasized the importance of remembering Alaska's great [coal] resource. She then directed attention to a slide that illustrates that Alaska is a coal state. In fact, about 9 percent of Alaska is underlain by coal. Since World War I over 30 million tons [of coal] has been mined from the Healy Creek and Hosanna Creek fields. She reiterated that Usibelli is the only operating coal mine in Alaska. She then pointed out a graph entitled "Coal Effect on Electricity Rates by State," which illustrates electricity rates based on the use of coal to generate electricity. The graph relates nearly 100 percent of the electric generation in Wyoming uses coal while Alaska uses only 10 percent of its coal for electric generation. The graph further relates that the price of electricity increases as the use of coal decreases.

[12:06:06 PM](#)

MS. CARTER focused on Wishbone Hill, which has a long mining history. About 7 million tons were mined from 18 different mines from 1916-1982. In 1983 exploration drilling began at Wishbone Hill and by 1992 all of the permits for it had been obtained. Although Wishbone Hill Mine is considered a relatively small deposit with 14 million tons of surface

mineable coal identified, particularly when compared to the Healy mine that has over 500 million tons of surface mineable coal. However, Wishbone Hill is valuable since it's the only bituminous coal deposit on the road system. She then shared an aerial photo of the Wishbone Hill Mine, pointing out various aspects of it. Currently, the Usibelli Coal Mine, Inc. is in the middle of a feasibility study on the Wishbone Hill project, which is estimated to take a year. The hope is to make an announcement by next summer regarding whether or not Usibelli Coal Mine, Inc. will move forward with development. The feasibility study is based on 6 million tons of total reserves, which would amount to about 500,000 tons [of coal] produced annually for about 12 years. She noted that this summer an exploration program was completed. The core and bulk samples have been sent to an out-of-state laboratory for testing. Additionally, the feasibility study will analyze transportation options, update permits, and further review engineering.

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MS. CARTER then addressed the question of how the coal is transported to market. The three transportation options are to truck the coal from the mine site to Port MacKenzie; truck the coal to a point on the railroad at which point it would be railed to the Seward port; or have a rail extension to the mine site. She then informed the committee that the mine in Healy employs 125-130 employees; therefore, the estimate for the Wishbone Hill Mine is 75-125 full-time positions. She referred to the Wishbone Hill Mine jobs as stable jobs where people can live and work in their hometowns. She highlighted that this would be money that stays in Alaska's economy. Ms. Carter then turned to the energy needs of Wishbone Hill, which anticipates using 600 kilowatts per hour to one megawatt of energy. As has been related relative to other mines, getting energy to a mine location is quite an undertaking. However, the Wishbone Hill project is on the road system and close to the grid. Therefore, the options would be a new line from the nearby existing three-phase line or insertion of a transformer at the existing 120 kV line. She then shared a slide that illustrated the layout of the option of running a three-and-a-half mile line off the existing three-phase line to the mine area where a small transformer would be installed to help step-down the power for the mine facilities. She highlighted the location of the 120 kV line that runs power between Palmer and Sutton. Ms. Carter then directed the committee's attention to the slide illustrating the option in which a large transformer would be installed on the 120 kV line to step-down the power to 12 kV to run to the mine

site to power the facilities. She noted that the aforementioned would require the use of a smaller transformer.

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CO-CHAIR EDGMON inquired as to the role the mining industry would play in terms of building a gasline.

MS. SHAW said that is difficult to answer because a number of competing projects are being discussed. As mentioned earlier, those in the mining industry are willing to purchase gas if it's available. Furthermore, the mining projects are on their own timeline and can't wait for another project, the proposed gasline, which may or may not be built. Ms. Shaw indicated that the more detail the mining industry has regarding the proposed gasline, the more the mining industry can commit.

CO-CHAIR EDGMON recalled hearing that a large number of acres of land are available to mining. He then asked if there is enough demand for the mining industry such that it could be considered an industrial anchor tenant of an in-state gasline.

MS. SHAW answered that she believes the potential is certainly there as there are a lot of minerals throughout the state. Demand for minerals is increasing and it would be nice to produce those minerals in the U.S., she remarked. However, one of the top three barriers to mining in Alaska is the cost of energy. If the fuel and power costs could be reduced, Alaska would be far more attractive to the mining industry, she opined.

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CO-CHAIR MILLETT inquired as to how competitive Alaska is in terms of mining as compared to other states.

MS. SHAW responded that it depends on which study one references. She recalled a business league study that rated Alaska last. Some of the issues surround energy costs and tax questions. However, Alaska offers stability and the opportunity to develop on state, private, and Native lands. Furthermore, Alaska has a stable permitting system. Ms. Shaw pointed out that currently many eyes are on the mining industry in Alaska. She noted that whatever happens with the [mining] projects and work in play now will influence the view of the mining industry in terms of doing business in Alaska. She acknowledged that there is a lot of opposition to some of the current mining projects. When projects are stopped prior to even starting the

process, it sends a strong message that Alaska isn't open for business.

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ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 12:18 p.m.