ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE
January 22, 2020
1:02 p.m.

MEMBERS PRESENT

Representative John Lincoln, Co-Chair
Representative Grier Hopkins, Vice Chair
Representative Sara Hannan
Representative Dave Talerico
Representative George Rauscher
Representative Sara Rasmussen

MEMBERS ABSENT

Representative Geran Tarr, Co-Chair
Representative Chris Tuck
Representative Ivy Spohnholz

COMMITTEE CALENDAR

PRESENTATION: ALASKA LNG PROJECT UPDATE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

JOE DUBLER, Interim President
Alaska Gasline Development Corp.
Anchorage, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation entitled, "Alaska LNG Project Legislative Update House Resources Committee," dated 1/22/20, and answered questions.

FRANK RICHARDS, Senior Vice President Program Management
Alaska Gasline Development Corp.
Anchorage, Alaska
POSITION STATEMENT: Answered questions during the PowerPoint presentation entitled, "Alaska LNG Project Legislative Update House Resources Committee," dated 1/22/20.

ACTION NARRATIVE

1:02:18 PM

CO-CHAIR JOHN LINCOLN called the House Resources Standing Committee meeting to order at 1:02 p.m. Representatives Talerico, Hannan, Hopkins, Rasmussen, Rauscher, and Lincoln were present at the call to order.

CO-CHAIR LINCOLN made opening remarks.

PRESENTATION: ALASKA LNG PROJECT UPDATE

1:04:09 PM

CO-CHAIR LINCOLN announced the only order of business would be a presentation by the Alaska Gasline Development Corp.

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JOE DUBLER, Interim President, Alaska Gasline Development Corp. (AGDC), provided a PowerPoint presentation entitled, "Alaska LNG Project Legislative Update House Resources Committee." Mr. Dubler directed attention to slide 2, which was an overview of the history of AGDC: in 2010, House Bill 369 [passed in the Twenty-sixth Alaska State Legislature] instructed the Alaska Housing Finance Corporation to conduct a pre-feasibility study of a small diameter pipeline to transport natural gas from the North Slope to Fairbanks and Southcentral Alaska, to address anticipated lower gas production in Cook Inlet; the study resulted in an estimate of $10 billion to build the infrastructure needed to bring gas to Southcentral. In 2013, House Bill 4 [passed in the Twenty-eighth Alaska State Legislature] created AGDC, and its board of directors was granted broad powers in order to insulate the corporation from political influence. In 2014, Senate Bill 138 [passed in the Twenty-eighth Alaska State Legislature] authorized AGDC to represent the state in a partnership with ConocoPhillips Alaska, Inc., BP, and ExxonMobil Corporation, which was formed to facilitate construction of the Alaska Liquefied Natural Gas Project (AKLNG).

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MR. DUBLER stated that in 2016, the 25 percent interest in an earlier project - established by the Alaska Gasline Inducement Act (AGIA) [passed in the Twenty-fifth Alaska State Legislature] - held by TransCanada Corporation, was purchased by AGDC, thus

AGDC holds the state's 25 percent interest in the entire project; TransCanada Corporation deals with the GTP and pipeline portion of the project, while AGDC took the LNG facility. Also in 2016, the pre-front end engineering and design (FEED) work was completed, and it was determined that the price to deliver gas to Asia was not marketable. Subsequently, the state's private sector partners withdrew from the project. In the last two years, AGDC has sought to advance the project by finding financial partners and through other means. In 2019, AGDC began to update cost factors to determine whether the project could be competitive on the world market, and to complete the Federal Energy Regulatory Commission (FERC) regulatory process; in fact, FERC has issued its draft environmental impact statement (EIS), the final EIS is expected in March 2020, and a permit to proceed is expected in June 2020. Mr. Dubler stressed AGDC's focus in 2019 was turned away from the Alaska Stand Alone Pipeline (ASAP) to AKLNG due to ASAP's cost of $10 billion; however, ASAP is still an asset available to the state at any time as an infrastructure project that could provide gas to Alaskans if needed.

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REPRESENTATIVE RASMUSSEN asked how AGDC will proceed after [the FERC permit] is completed in June 2020.

MR. DUBLER explained efforts are already underway to seek third parties to invest in, own, build, and operate the project. He stressed the state would not be able to build an integrated liquefied natural gas (LNG) project without experienced partners because AKLNG consists of three projects: North Slope facilities, a pipeline, and an LNG facility, each of which is an approximately $10 billion project.

REPRESENTATIVE RASMUSSEN asked whether the state would retain ownership in the project and, if so, at what percentage.

MR. DUBLER answered that he did not know; he observed similar projects occur when there is an alignment between the ownership of the gas and the ownership of the project. Depending upon agreement, the state would own up to 25 percent of the gas and thus could own or invest one-quarter of the equity in the project.

REPRESENTATIVE HOPKINS questioned whether AGDC would need to add staff if it receives the final FERC permit in June 2020.

MR. DUBLER said no, explaining AGDC's role would not be as the project's sponsor but would represent the state's interest; for example, [the state's interest] in commercial negotiations.

REPRESENTATIVE HOPKINS asked whether current AGDC staff would be sufficient in this regard.

MR. DUBLER advised that if the project cost projections are favorable in June [2020], then third parties will participate in the project and the role for AGDC will be relatively limited; the third parties will be taking the lead and most of the risk of construction and operations. He estimated participation by minority parties will not require a staff exceeding 24 employees, although the need is unknown at this time.

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MR. DUBLER directed attention to slide 3 and reviewed AGDC's activities in 2019, shown on the slide as follows [original punctuation provided]:

- shelved ASAP pending interest by an entity - the project is not economic at current gas prices
- reinitiated the stage gate process for AKLNG - a reasoned approach to developing a project by stopping to reevaluate its economics before further spending
- suspended AGDC's focus on marketing AKLNG in Asia and returned focus to the FERC process to de-risk the regulatory risk to the project - he provided an example
- committed to evaluating AKLNG competitiveness by updating costs related to construction costs and tariffs
- contracted with the engineering firm that provided original cost estimates under the terms of the Joint Venture Agreement (JVA) to provide December 2019, cost estimates
- committed to solicit private sector firms to build, own, and operate AKLNG

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CO-CHAIR LINCOLN returned attention to ASAP and asked for the term of the rights-of-way (ROWs) that have been received.

MR. DUBLER expressed his understanding the ASAP permit from the U.S. Army Corps of Engineers (USACE) is valid for five to seven years; if construction begins within five to seven years, applications can be made for an extension of the permit.

CO-CHAIR LINCOLN asked about the time limit for the AKLNG permit.

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FRANK RICHARDS, Senior Vice President Program Management, AGDC, explained the USACE and Bureau of Land Management (BLM) Joint Record of Decision, permits, and ROW across state and federal land for ASAP are authorizations valid for three to five years on a major EIS; however, additional work on the project could add more time. He cautioned ASAP has been set aside thus time is expiring on the ASAP permits. The lead federal agency regulating AKLNG is a different agency - FERC - and FERC will keep its order to construct AKLNG open for eight years or longer for additional work.

CO-CHAIR LINCOLN inquired as to the firm updating the economic analysis of AKLNG.

MR. DUBLER answered Fluor Corporation.

MR. RICHARDS added Fluor Corporation's Houston [Texas], Aliso Viejo [California], and offshore offices are providing data from other major projects. Other participants in the ongoing work are AGDC, ExxonMobil, and BP. In further response to Co-Chair Lincoln, he said the work completed in 2016 under the terms of the JVA was compiled by ExxonMobil. Fluor Corporation developed cost estimates for ASAP and has reviewed facets of AKLNG for project sponsors.

CO-CHAIR LINCOLN asked for a summary of the basis for the project's high cost estimates.

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MR. RICHARDS explained in April 2019, there was a review of the execution plan and cost estimate developed under the terms of the JVA, led by ExxonMobil. The review was of the methods the project planned for delivery of materials and how the construction would be executed. He noted there have been increases in the use of modular construction in oil and gas facilities worldwide, which is a significant way to reduce the

cost of a constructing a facility. In fact, modularization is a significant component in reducing cost for AKLNG. The gas treatment plant on the North Slope was planned for modular construction; however, the liquefaction facility in Nikiski was designed with substantial onsite construction at increased cost. Further cost reductions may be found in the price of major commodities, and by reductions to the project management team.

MR. DUBLER directed attention to slide 4 which showed a map and specifications for AKLNG. The pipeline begins at Point Thomson to a main gas treatment plant at Prudhoe Bay, and continues 804 miles to Nikiski. He noted there would be 500 to 1,500 workers on the North Slope during peak construction, and construction of the gas treatment plant would require 250,000 to 300,000 tons of steel. Mr. Dubler pointed out modular construction saves construction costs because units are built elsewhere with cheaper labor and shipped to the North Slope for installation, as has been done for many years on the North Slope.

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MR. DUBLER said the pipeline is a 42-inch steel pipeline, with pressure greater than 2,000 pounds per square inch (PSI), maintained with compressor stations, and shipping 3.3 billion cubic feet per day. He compared the aforementioned production with the use of natural gas in Anchorage which is 250 million cubic feet per day; further, 500 million cubic feet will be available for in-state use. The liquefaction plant will produce up to 20 million tons per annum (MTPA) with three trains that allow for expansion. The estimated peak workforce of 3,500 to 5,000 workers will be less if modular construction is utilized. Mr. Dubler stressed the price and fabrication of steel affects the cost of the project significantly.

REPRESENTATIVE HANNAN asked how the price of steel has affected the cost of the project over the past five years, and for the factors that affect the price of steel.

MR. DUBLER assured the committee AGDC will find the best price available for steel; the steel could be sourced from the U.S., which would negate the added cost of an [import] tariff. He advised Fluor Corporation will provide guidance in this regard.

REPRESENTATIVE HANNAN asked - in addition to high volume - whether AGDC staff are aware of issues related to timing and the demand for steel.

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MR. DUBLER said AGDC has cut staff and expressed his understanding current staff do not follow the steel market. In regard to other projects, he said information about other projects is illusive; for example, AKLNG was to begin construction in 2020. The price of energy is also a factor in the price of steel, which is the reason AGDC will rely on Fluor Corporation for advice. He turned attention to slide 5, which illustrated the components of the gas treatment plant at a cost of $10.7 billion, the pipeline at a cost of approximately $14 billion, and the LNG production facility at a cost of approximately $20 billion, based on 2015 cost estimates. A final investment decision (FID) would occur in 2022, after additional work is completed during the FEED stage.

REPRESENTATIVE HANNAN surmised "first cargo means a tanker leaving with gas in it."

MR. DUBLER said correct. He estimated there is a time lapse of one year to eighteen months between the beginning of production and full commercial production.

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MR. DUBLER continued to slide 6, which illustrated a stage gate process. He restated the process is a reasoned approach which forces parties to stop at predetermined points and decide whether to advance the project. A stage gate process is not appropriate for some projects, such as roads, but is an industry-led effort with stopping points at which the project is analyzed. As shown on slide 6, AKLNG has three stopping points. He cautioned the state should avoid a project that is delayed by obstacles and advances only because a lot of money has been invested.

REPRESENTATIVE RAUSCHER asked for clarification of "de-risk."

MR. DUBLER explained de-risk is reducing risk; for example, reducing regulatory risk by getting the FERC permit. In further response to Representative Rauscher, he said the timeline for obtaining permits is several years as there are thousands of permits required because of the number of facilities and the length of the pipeline.

REPRESENTATIVE RASMUSSEN asked for the amount the state would have invested at each stopping point [indicated on slide 6.]

MR. DUBLER said the front end loading (FEL) 2 Decision was prior to pre-FEED thus there would have been no investment in AKLNG at that time; however, costs incurred by the Department of Natural Resources (DNR) and state agencies over the past 40 years are unknown. During pre-FEED, under the terms of the JVA, the state spent approximately $150 million, and the aforementioned amount paid to TransCanada was $160 million.

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MR. RICHARDS expressed his understanding costs associated with AGIA were over $320 million.

MR. DUBLER returned attention to slide 6 and talked about the next stage, the FEED effort. He said there has been quite a bit of discussion about this because it was in the original Joint Venture Agreement. He explained the concept was to complete the regulatory effort during FEED; however, a good deal of that effort was completed during pre-FEED. He said the original estimate was about $1.5 billion to go from "the middle green one to the right green one" [in reference to the slide]. He said AGDC thinks it's going to be significantly less because of the permitting that it has acquired in the last two or three years. He indicated that the numbers he has heard "thrown around" are in the range of $800 million to $1.2 billion.

MR. DUBLER clarified the estimate of $800 million to $1.2 billion is for the entire project. He suggested the state's portion would be determined by the state's role in the project; for example, one-quarter interest in $1 billion is $250 million. In response to Representative Hopkins, he said the project is now at the FEED (FEL 3) stage [shown on slide 6 in the middle yellow box], which is a decision stage.

REPRESENTATIVE HOPKINS questioned whether June 4, [2020,] is the final investment decision timeframe.

MR. DUBLER answered no, FID would be two more years; FEED is approximately eighteen months [hence] if the project is economic.

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MR. DUBLER directed attention to slide 7, which was an overview of AKLNG's regulatory program. He explained "pre-FEED JVA" advanced the project through FERC pre-filing; subsequently, AGDC answered 2,000 questions through FERC, which serves as the lead federal agency. Further, there has been no change to AKLNG design criteria since 2015-2017, and data from ASAP was used for AKLNG where the routes aligned.

MR. DUBLER continued to slide 8, which illustrated some of the federal, state, and local agencies that are issuing permits for the project.

REPRESENTATIVE RASMUSSEN questioned whether state permitting processes could be streamlined.

MR. DUBLER advised the enabling legislation that created AGDC authorized state permitting agencies, departments, and corporations to give preference to AKLNG over other projects.

MR. RICHARDS pointed out issues concerning ROWs over state land involved five different agencies, with differing regulations, and he suggested this process could be improved.

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MR. DUBLER continued to slide 9, which listed the FERC schedule and some milestones achieved by the project, such as public comment meetings where the project was supported by affected communities. He noted the biggest issue is between regions seeking to have facilities located in their region. Subsistence hearings have raised the issue of access which is being addressed for the Native Village of Minto. On 10/3/19, draft EIS comments were provided to FERC; the final EIS is expected on 3/6/20, and the final FERC order on 6/4/20. Mr. Dubler said the aforementioned accomplishments are encouraging to potential participants in the AKLNG project.

REPRESENTATIVE HOPKINS asked whether a 100-foot ROW is standard for the main pipeline.

MR. DUBLER stated AGDC would take measures in order not to create issues for subsistence hunters, and deferred to Mr. Richards.

MR. RICHARDS further explained during construction the width of a ROW would be approximately 120 feet; however, after the pipeline is in the ground the permanent ROW would be

approximately 53 feet, which would be kept clear of new [vegetative] growth for maintenance purposes.

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MR. DUBLER added that in Denali National Park and Preserve the ROW will become a bike trail.

REPRESENTATIVE HOPKINS asked whether the ROW will be a publicly accessible ROW.

CO-CHAIR LINCOLN clarified the opportunity for people to use the ROW for hunting is a concern; definitely the intent of the ROW was not to open the ROW for hunting access.

MR. DUBLER acknowledged "an unfortunate consequence" is the potential to open up areas.

MR. RICHARDS explained access to the ROW will be governed by the landowner who provides AGDC with a ROW easement or a land lease; private landowners and federal entities have expressed concerns about subsistence issues and sensitive habitat. He said AGDC will comply with the wishes of the landowners; furthermore, the future operator of the project will need access for maintenance, which would be part of the landowner agreements. Mr. Richards remarked:

> So, the concept is ... not an open trail concept for, you know, from Prudhoe Bay to Nikiski, it is going to be -- it's an active pipeline corridor.

MR. DUBLER observed along Parks Highway the ROW could provide access to an area not accessible now because there are wetlands or dense vegetation; on state land, state rules regarding access would apply. He continued to slide 10, which listed completed major permits from entities such as the U.S. Coast Guard, the U.S. Department of Energy, the National Oceanic and Atmospheric Administration, and the Pipeline and Hazardous Materials and Safety Administration (PHMSA), U.S. Department of Transportation. He related PHMSA is an oversight agency to ensure pipeline safety and reduce risk, which is extremely important to AGDC and the oil and gas industry. Slide 11 listed major permits that are in process.

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MR. RICHARDS advised projects such as AKLNG or ASAP may need to deviate from design standards or regulations set by PHMSA and thus need a special permit from PHMSA. For example, in Nikiski, LNG will be contained in tanks and must be transported by a pipeline to two loading berths, and PHMSA required the installation of a very expensive catchment system in case of a spill. However, AGDC proposed an alternative pipe in pipe concept which utilizes a smaller pipe inside a larger pipe, both of which would be capable of safely transporting LNG. This concept has been used in LNG facilities outside the U.S., therefore, AGDC is seeking a special permit from PHMSA to use pipe in pipe, which is a safe and cost-saving element. The remainder of the permits shown on slide 8 will be received during the next six months and will continue to de-risk the project.

MR. DUBLER said additional permits in process are related to whales, bridges, a ROW through Denali National Park and Preserve, wetlands, and water quality (slide 12). He stated water quality issues occur because the project crosses several major rivers. He described two other pending permits (slide 13).

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REPRESENTATIVE RAUSCHER asked when all the permits would be received.

MR. DUBLER stressed the major permits would be obtained first; however, a large project does not advance before most permits are acquired, and he elaborated.

REPRESENTATIVE RAUSCHER restated his question.

MR. RICHARDS said the aforementioned major federal permits grant authorization to construct the project, followed by state and local permits. Most of the state and local permits will be acquired as the project advances through FEED; however, there will be permitting activity up to and through the time of construction. In fact, he said, there will be authorized officers in the field during construction who will address permit compliance through operations. He noted the majority of permits will be acquired prior to the final investment decision.

MR. DUBLER estimated six to seven years total to acquire permits.

CO-CHAIR LINCOLN surmised two years from now all major permits would be done.

MR. DUBLER turned attention to AGDC's efforts to reduce the cost of the project in order to determine the future of the project. Sufficiently reducing the cost from the 2015 estimate is critical to the project being commercially viable: Fluor Corporation will update the cost estimate by completing ten major cost elements including modularization, sourcing, and contingency which is 20 percent of the cost of the project. The class 4 updated estimate incorporates 15-20 percent engineering with a percentage of generic design; after FID, design advances to the engineering, procurement, and construction (EPC) phase [slide 14].

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REPRESENTATIVE HOPKINS asked whether labor costs are included and, if so, how labor costs are estimated.

MR. DUBLER indicated labor costs are included. A complete cost of labor is based on prevailing wages in Alaska, which are higher than wages paid in the Gulf of Mexico [gulf coast] labor market.

REPRESENTATIVE HANNAN inquired as to classes of estimates.

MR. RICHARDS explained definitions of class levels of estimates are established by the American Association of Cost Estimators as follows: initial work is class 5 level; pre-FEED is class 4 level; FEED is class 3 level; detailed design/EPC is class 2 level; complete project is class 1, when the overall costs are known.

CO-CHAIR LINCOLN questioned whether AGDC is currently working with an investment bank.

2:26:00 PM

MR. DUBLER remarked:

> We have been working with ... an investment bank for quite a while now. It's ... Goldman Sachs, which is why I didn't put it in the presentation, but since you asked... For those of you who didn't hear, they came out with an announcement that they're not going to support any projects that involve drilling for liquids

> in ... the Arctic, for -- it was specifically ... related to oil, not gas. However, that's -- as an Alaskan, that, to me, that's kind of offensive; ... it's something that is a real problem for them to continue working on this project. ... We've talked to them, and they said that wasn't their intent, that they're OK to keep working on this, and we have continued to work with them. We're still evaluating that, whether that relationship will continue.

REPRESENTATIVE RASMUSSEN asked, "Do you have a ballpark of the amount of exposure we have with Goldman in investment right now?"

MR. DUBLER said [Goldman Sachs] has done some work; investment banks do not make money during structuring of a project but earn commissions when the equity or debt is sold. He further explained:

> ... I believe we had a contract with them not to exceed $150,000. We've probably got $100,000 into that already from the work that they've done over two years, so it's not a lot of money ..., and they've provided some very good advice ... [and] product that we've used .... [For example,] we just finished working with them on our shared economic model. ... Exxon and BP and AGDC came together and created a model to do a projection so that when the costs are updated and when everything's done, we can put them into this model and get some idea at the end on what we would potentially be able to deliver gas to Asia for ....

REPRESENTATIVE HANNAN observed BP was an investment company in AKLNG and BP is now selling its North Slope assets to Hilcorp. She asked whether BP retains any rights to the work in which it has invested.

MR. DUBLER directed attention to slide 15 and said BP and ExxonMobil are not partners in the project but have a cost sharing agreement to provide funding to AGDC for work on the project; after the agreement terminates in [June 2020], further action by BP is unknown. He surmised all of the parties will make decisions in the future.

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REPRESENTATIVE HANNAN questioned whether BP retains rights to use any technical data in the future that was gleaned from AKLNG, because BP was one of the parties that invested in the project.

MR. DUBLER acknowledged ownership of data related to AKLNG is confusing; although AGDC has a license to use some of the data, and owns some of the data, there are different categories of data. For example, ExxonMobil worked with TransCanada on the AGIA project at the same time ConocoPhillips Alaska, Inc. and BP were working on the "Denali pipeline"; both projects accumulated data for AKLNG. He cautioned this is a technical legal issue and opined it is in the best interest of North Slope companies that own data to allow the data to advance the AKLNG project.

MR. DUBLER returned attention to slide 15, noting AGDC acquired $20 million receipt authority in fiscal year 2020 (FY 20) of which BP and ExxonMobil agreed to provide up to $10 million each. He pointed out AGDC is significantly underbudget and will spend approximately $15 million in FY 20 - of which the state's cost is $5 million - and with $20 million left, AGDC can continue working for several years without additional appropriations. Further, in the FY 21 budget, there is additional receipt authority of $20 million for use if a positive outcome of AKLNG's economic analysis occurs.

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MR. RICHARDS related AGDC operations in FY 20 were authorized for approximately $10 million and the AGDC board of directors authorized an additional $20 million for capital spending in order to complete the FERC license and the permitting process, and for [expenses related to the] cost reduction work; therefore, AGDC budgeted up to $30 million, including the one-third funding provided by ExxonMobil and BP. Through [November 2019], AGDC spent approximately $5.2 million and will spend additional funds to Fluor Corporation, with an expected total expenditure of approximately $15 million. ExxonMobil and BP provide reimbursements on a quarterly basis. He concluded AGDC is spending its budget responsibility.

REPRESENTATIVE HANNAN asked for clarification of AGDC's capital spending procedure.

MR. DUBLER explained AGDC's original appropriation was put into a fund to be used to advance the AKLNG project and AGDC returns to the legislature on an annual basis for operating funds;

capital expenditures for facets of the AKLNG project are withdrawn from the fund without further appropriation. In response to Co-Chair Lincoln, he confirmed permitting costs are paid from the fund for capital expenditures.

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ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 2:40 p.m.