

**ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE**

January 27, 2025

3:30 pm

MEMBERS PRESENT

Senator Cathy Giessel, Chair
Senator Bill Wielechowski, Vice Chair
Senator Matt Claman
Senator Forrest Dunbar
Senator Scott Kawasaki
Senator Shelley Hughes
Senator Robert Myers

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Senator Kelly Merrick

COMMITTEE CALENDAR

PRESENTATION(S): WOOD MACKENZIE - ECONOMIC VIABILITY ASSESSMENT
AND ECONOMIC VALUE OF ALASKA LNG PROJECT - PHASE 1

- HEARD

PRESENTATION(S): ALASKA GASLINE DEVELOPMENT CORPORATION REPORT

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

FRANK RICHARDS, President
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska

POSITION STATEMENT: Introduced the presentation on the Wood
MacKenzie Viability Assessment and Economic Value of Alaska LNG
Project - Phase 1.

COSTA SWIFT, Vice President
Upstream and Carbon Management Consulting Team
Wood MacKenzie
Houston, Texas

POSITION STATEMENT: Gave the presentation, Wood MacKenzie Viability Assessment and Economic Value of Alaska LNG Project - Phase 1.

FRANK RICHARDS, President
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska

POSITION STATEMENT: Gave the presentation, Alaska Gasline Development Corporation Report.

MATT KISSINGER, Senior Principal
New Business Ventures
Alaska Gasline Development Corporation (AGDC)
Anchorage, Alaska

POSITION STATEMENT: Answered questions on the presentation by the Alaska Gasline Development Corporation Report.

ACTION NARRATIVE

[3:30:18 PM](#)

CHAIR GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Myers, Dunbar, Kawasaki, Hughes, Claman, and Chair Giessel. Senator Wielechowski arrived shortly thereafter.

PRESENTATION(S): WOOD MACKENZIE - ECONOMIC VIABILITY ASSESSMENT and ECONOMIC VALUE OF ALASKA LNG PROJECT - PHASE One

[3:30:55 PM](#)

CHAIR GIESSEL announced the presentation titled Wood MacKenzie, Economic Viability Assessment and Economic Value of Alaska LNG Project.

[3:31:34 PM](#)

FRANK RICHARDS, President, Alaska Gasline Development Corporation (AGDC), Anchorage, Alaska introduced the presentation, Wood MacKenzie Economic Viability Assessment and Economic Value of Alaska LNG Project - Phase One. He explained that the Alaska legislature requested an independent third-party evaluation of Phase One of the Alaska LNG project the prior year. The study objective was to determine the gross value added to the state of Alaska should the project proceed.

[3:32:27 PM](#)

Technical issues delayed the presentation.

[3:33:13 PM](#)

At ease.

[3:38:52 PM](#)

CHAIR GIESSEL reconvened the meeting. Technical issues persisted.

[3:40:53 PM](#)

At ease.

[3:43:06 PM](#)

CHAIR GIESSEL reconvened the meeting.

[3:43:40 PM](#)

COSTA SWIFT, Vice President, Upstream and Carbon Management Consulting Team, Wood MacKenzie (WM), Houston, Texas, began the presentation of the Wood MacKenzie Viability Assessment and Economic Value of Alaska LNG Project - Phase 1 report. He said the presentation today was a short version of the complete report.

[3:44:55 PM](#)

MR. SWIFT moved to and narrated slide 4:

[Original punctuation provided.]

Project Background

Wood Mackenzie has worked extensively as an independent consultant on Alaska's energy issues since 2016 to provide an economic analysis of the viability of the cost of supply (CoS) for Alaska LNG (also referred to as AK LNG). Most recently in 2021/22, Alaska Gasline Development Corporation (AGDC) engaged Wood Mackenzie for an updated analysis that included calculating a new base CoS, identifying opportunities to optimize the CoS, a competitive analysis and providing our long-term projections.

[3:46:01 PM](#)

MR. SWIFT continued to narrate slide 4:

Since the last study, AGDC has proposed a phased approach to developing Alaska LNG. Phase 1 involves developing the gas pipeline from the North Slope to Southcentral and Interior Alaska markets. As part of Phase 1, ADGC has engaged Wood Mackenzie for an independent economic analysis of **the proposed gas pipeline** and an **economic benefit analysis** for the state of Alaska.

The information on which this independent report is based has either come from our experience, knowledge and database or it has been supplied to us by AGDC. The opinions expressed in this report are those of Wood Mackenzie. They have been arrived at following careful consideration and enquiry, but we do not guarantee their fairness, completeness, or accuracy. The opinions, as of this date, are subject to change. Please note that for this engagement, we have adjusted our standard base case to reflect disclosed asset-specific information.

This Report is structured across 5 sections:

- Southcentral and Interior Alaska market overview
- Delivered cost of piped gas and scenario analysis
- Analysis of LNG imports as an alternative
- Economic impact of Alaska LNG Phase 1
- Final takeaways and conclusions

[3:47:30PM](#)

MR. SWIFT moved to and narrated slide 5, consisting of two graphs:

- "Cook Inlet Gas production" depicts the history and the projected future level of production beginning in 2000 through 2070.
- "Exploration activity in the Cook Inlet Basin" depicts the results of exploration activities from 2009 through 2023.

[Original punctuation provided.]

Gas supply has been dwindling, and despite exploration efforts by operators, no new volumes have been discovered in Cook Inlet to replenish the reserves

- Cook Inlet production is expected to be depleted by the mid-2030s
- Exploration success in the Cook inlet has been limited:
 - **34 exploration wells** drilled in the last 15 years
 - **9 percent success rate** with only three commercial discoveries
 - **270 bcf** of reserves discovered in the last 15 years

[3:49:21 PM](#)

MR. SWIFT moved to and narrated slide 6, describing two alternatives to replace the declining production in Cook Inlet:

[Original punctuation provided.]

With Cook Inlet gas production recovery proving to be a challenge, two main alternatives to addressing the forecast supply gap are a new gas pipeline and LNG imports

Gas supply alternatives for Southcentral and Interior Alaska market

1. Natural gas supply via pipeline

In Phase 1, a 765-mile, 42-inch diameter mainline pipeline will connect the Southcentral Alaska region with the northern fields, providing a secure and affordable gas supply. In the beginning, the pipeline will supply local and industrial consumption, then expand to provide feed gas for export into LNG markets.

Key stats

- Total capex: From US\$10.8 billion to US\$14.9 billion for max capacity
- Time to first gas: 2031
- Capacity: 3.3 bcfd at max
- Ability to expand to cover incremental investment in subsequent LNG phases

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MR. SWIFT continued to narrate slide 6:

2. LNG imports¹ Gas imports via LNG require regas and further downstream infrastructure, including an FSRU dock to take the imported gas and potentially inland storage for operations optimization across yearly seasonality.

Key stats

- Total capex: TBD
- Time to first gas: 3 - 4 years post FID²
- Capacity: 400 to 450 mmcf/d fit for current demand without increased industrial activity
- Expected utilization: 40 - 45 percent

Slide 6 includes two maps illustrating each of the two alternatives described by the slide.

[3:51:25 PM](#)

SENATOR MYERS noted that the capex for "1. Natural gas supply via pipeline" is estimated to be \$10.8 to \$14.9 billion. He said \$40 billion has been quoted for around a decade. He asked for clarification about what "Phase 1" does and does not include.

[3:51:57 PM](#)

MR. SWIFT answered that Phase One is only related to the pipeline itself. It includes the main line of the pipeline and does not include extra compression, the Cook Inlet and additional [pipeline] section that would be needed; it does not include the expansion to Point Thompson or anything related to the LNG itself. He said Phase 1 was just the main pipeline.

[3:52:41 PM](#)

SENATOR MYERS sought to clarify further. He said, to fill the gap between the \$11 billion figure in this presentation to the \$40 billion that has been quoted in the past would include:

- 50-60 miles of pipeline to Point Thompson
- 30-40 miles of pipeline across Cook Inlet
- LNG export plant

[3:53:12 PM](#)

MR. SWIFT concurred, though he acknowledged uncertainty about the \$40 billion figure. He said it would also include gas processing at Cook Inlet for LNG volumes.

[3:53:31 PM](#)

SENATOR MYERS commented that the comparison of nearly 800 miles of pipeline to around 100 miles of pipeline, plus a gas treatment plant plus a gas compression facility to re-liquefy it did not quite add up.

[3:54:03 PM](#)

SENATOR CLAMAN referred to alternative "2. LNG imports", "Key Stats" and asked for an explanation of the "Expected utilization: 40-45 percent."

[3:54:33 PM](#)

MR. SWIFT said 40-45 percent references the overall utilization of the facility. He said, because of the typical nature of demand, the facility must be built large enough to meet the peak demand. During the low season, the facility isn't utilized fully and spare capacity is needed in the facility to be able to take in more gas during peak seasons.

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CHAIR GIESSEL asked for greater clarification of what was not included in the estimate for Phase 1. She noted that past estimates [for an LNG pipeline] by Exxon included a treatment facility on the North Slope, the pipeline itself and off-takes, for example to Fairbanks, as well as an export facility on the [Kenai] Peninsula, which, she surmised, was how they arrived at \$40 billion. She noted that was ten years ago. She observed that there had been inflation; and she opined that a pipeline all by itself would not meet the need for gas in southcentral Alaska if that gas hasn't been treated on the North Slope to make it consumer ready. She said Fairbanks needed a take-off point from the pipeline. She asked how the \$11 billion would meet the need.

[3:56:41 PM](#)

MR. SWIFT said the assumptions that were used from the supply perspective were that gas would come from the Great Bear Pantheon field. Part of the modeling was to verify that was possible at their selling price. He said the cost of processing and splitting into the upstream fields was included in order to get the minimum gas required to meet the demand of the southcentral region.

[3:57:14 PM](#)

CHAIR GIESSEL asked whether Pantheon had gas.

[3:57:30 PM](#)

MR. SWIFT affirmed that Pantheon did some flow testing and did have gas. He described the model Wood MacKenzie (WM) built based

on the publicly available flow test results and according to the model, which showed an increase in the net present value of the asset, it would make sense for Pantheon to sell the gas.

[3:58:07 PM](#)

SENATOR WIELECHOWSKI noted that AGDC had previously negotiated agreements with Prudhoe Bay and Point Thompson producers. He asked whether those agreements had expired.

[3:58:22 PM](#)

MR. SWIFT said he did not know whether those agreements had expired and suggested that would be a question for AGDC.

[3:58:46 PM](#)

SENATOR WIELECHOWSKI asked whether Great Bear Pantheon had funding to develop its resources.

MR. SWIFT said that was not something WM looked at.

[3:58:59 PM](#)

SENATOR WIELECHOWSKI asked whether the agreement with AGDC would require the removal of carbon dioxide (CO₂) to accommodate the design of the [pipeline] system if the Great Bear Pantheon supply is found to contain CO₂.

[3:59:15 PM](#)

MR. SWIFT said he was unable to comment on that.

[3:59:21 PM](#)

SENATOR KAWASAKI referred to the WM cost of supply chart from a 2022 presentation which addressed the price for a pipeline. He said the cost of supply was noted at \$7 MMBtu and the cost of the pipeline was estimated to be around \$12.7 million. He said the capital costs mentioned in the prior presentation, but not in the current one were the LNG facility at approximately \$6.8 billion and the gas treatment plant on the North slope would be about \$9.2 billion. He asked whether the \$40 billion figure may have come from that presentation.

[4:00:11 PM](#)

MR. SWIFT concurred.

[4:00:26 PM](#)

MR. SWIFT moved to and narrated slide 7:

[Original punctuation provided.]

Four scenarios were developed and analyzed to account for: existing gas demand (baseload), potential new demand brought by gas availability, and the construction of a 20 [million tons per annum] mtpa LNG facility

Scenario 1: Baseload

This includes the Current State demand for gas in Southcentral and Interior Alaska. Plus, additional demand from Fairbanks substitution of oil/wood as gas becomes available to avoid EPA's nonattainment area designation and finally, the ramp-up from the Nikiski Refinery

Components:

Current state (Southcentral + Interior)
+ Fairbanks
+ Nikiski Refinery

Average gas demand ([million cubic feet per day] mmcf, 2031-2071)

~190

Scenario 2: WM Case

Baseload plus additional gas demand based on historical gas demand for the industrial sector and population growth forecasts. We estimate Industrial demand will reach 48 mmcf (32 mmcf additional to 16 mmcf from the Nikiski Refinery¹)

Components:

Baseload
+ Additional Industrial Activity

Average gas demand (mmcf, 2031-2071)

~220

Scenario 3: Additional Industrial demand

This considers the maximum upside from industrial demand based on high-consuming facilities starting operations. This incremental gas demand could come from restarting a previously operating fertilizer plant, a new ammonia plant (brownfield or greenfield) or new data centers.

Components:

WM Case

+ High-consuming industrial plant

Average gas demand (mmcf/d, 2031-2071)

~320

Scenario 4: Alaska LNG

The 20 mtpa LNG Facility (Alaska LNG) will require an additional 2,844 mmcf/d at full capacity². This demand was added to the WM Case and assumed to come online in 2032 with one 6.7 mtpa train and two more in 2033 and 2034, respectively

Components:

WM Case

+ Alaska LNG³

Average gas demand (mmcf/d, 2031-2071)

~2,930

Source: Wood Mackenzie 1. In 2001 industrial demand reached 185 mmcf/d with industrial activity and population at 632,716. Even though population is expected to peak in 2033, WM expects enough demographic base to support increased demand back to historic levels via additional uses of natural gas 2. Feedgas estimation considers 7.11 percent Liquefaction Loss, 1.56percent Transport Loss, and 52,000,000 mmbtu/mt and 1,090 [british thermal unit per standard cubic foot] Btu/scf conversions. 3. Additional average demand is 2,705 for the 40 years due to phased kick-off of one train per year.

[4:02:25 PM](#)

MR. SWIFT moved to and narrated slide 8, continuing the comparison of the four model scenarios, specifically comparing the projected costs for each scenario. Slide 8 also contains a map illustrating the route of the proposed AK LNG gasline mainline, the Point Thompson Transmission Line and the Cook Inlet Crossing:

[Original punctuation provided.]

Costs in the first three scenarios account for minimum compression capacity but with Alaska LNG, the cost for compression and a segment to cross Cook Inlet is also considered

Alaska LNG Pipeline capex by scenario

Real 2024 US\$ million

[Slide 8 presents the following information in a table format.]

Baseload Scenario

Capex / Scenarios (2024 US\$ million):

Phase 1 mainline¹ \$10,769

Total Amount \$10,769

WM Case

Capex / Scenarios (2024 US\$ million):

Phase 1 mainline¹ \$10,769

Total Amount \$10,769

Additional Industrial demand

Capex / Scenarios (2024 US\$ million):

Phase 1 mainline¹ \$10,769

Total Amount \$10,769

Alaska LNG

Capex / Scenarios (2024 US\$ million):

Phase 1 mainline¹ \$10,769

Compression \$2,485

Cook Inlet + Additional Section \$1,131

Point Thompson Expansion \$564 N.A.²

Total Amount \$14,385

[Baseload Scenario, Phase 1 mainline \$10,769 million]

- In-state gas demand is burden only by Phase 1 Capex
- Additional cost is considered only for LNG volumes coming online

Source: Wood Mackenzie with information from AGDC

1. Considers 20 percent Contingency and US\$50 million of Property Taxes

2. Alaska LNG Scenario does not consider the Point Thompson Expansion cost. In order not to affect the rest of the shippers it must be considered as part of the purchase gas cost for the LNG facility only.

[4:03:40 PM](#)

MR. SWIFT moved to and narrated slide 9, consisting of a graph comparing the four scenarios' projected pipeline capital expenditures (Capex) and the delivered cost of Gas [price to consumer] from the year 2031 through 2071:

[Original punctuation provided.]

The scenario analysis shows an asymmetrical impact on the delivered cost of gas from a change in demand accruing to the consumers' benefit

[Slide 9 consists of a graph comparing the four scenarios' projected pipeline capital expenditures (Capex) and the delivered cost of Gas [price to consumer] from the year 2031 through 2071.]

[4:04:52 PM](#)

CHAIR GIESSEL commented that there are decades between 2031 and 2071 and she opined that the figures may not account for inflation over that period. She said she wouldn't bank on [a consumer price] of \$2.32, but said it was a nice idea.

[4:05:15 PM](#)

MR. SWIFT moved to and narrated slide 10. Slide 10 contains a table and a tornado chart demonstrating WM's finding: "Additional sensitivities showed that securing a Federal Loan Guarantee and reducing Property Tax have the most impact on the cost of gas."

MR. SWIFT explained that the left side of the table listed the different sensitivities tested, including debt-to-equity ratios, federal loan guarantees, borrowing rates, return on equity, property tax, project life, gas cost, Capex, and supply point and the right side of the table visualized the impact of these sensitivities via tornado chart. He pointed out that the two most significant sensitivities affecting the cost [of gas] are the federal loan guarantee and property tax.

[4:07:10 PM](#)

MR. SWIFT moved to and narrated slide 11. He noted that the presentation had focused on the gas supply from the northern part of Alaska and said importing LNG would be the other option:

[Original punctuation provided.]

The LNG import cost analysis considers four main components (LNG cost, shipping, and regasification) across the value chain, each with a potential range of results

LNG import cost components

1. LNG Cost

- Multiple alternatives exist for securing supply of LNG (i.e. acquiring the molecule), ranging from spot market purchases, long-term supply and purchase agreements (SPA), or taking a tolling position partnering with an LNG developer
- Each alternative provides exposure to its own set of market risks and requires different levels of investment and management

2. Shipping

- LNG being a global commodity provides multiple geographical alternatives that require shipping cost considerations
- Alaska's access to the Pacific means geographical focus in Pacific facing projects, ideally as close as possible (e.g. West Canada projects), though other limitations arise, such as availability of supply or possible ship sizes

[4:09:01 PM](#)

MR. SWIFT continued to narrate slide 11:

3. Regasification

- LNG requires to be regasified (transformed back to natural gas) to be consumed
- Regasification costs depends upon configuration of the processing facility e.g.: Land vs. [Floating Storage and Regasification Unit] FSRU¹, overall size, storage requirements, levels of utilization, etc.

4. On shore gas reception

- There are potential infrastructure requirements depending on specific circumstances such as costs to access the gas network and/or requirement to have a dock that meets the needs to bring the gas in-land in the case of an FSRU

Range of Cost estimated for LNG Imports

Source: Wood Mackenzie; 1. Floating Storage Regasification Unit

[4:10:21 PM](#)

CHAIR GIESSEL noted that ignoring the onshore gas reception costs created a significant unknown in WMs estimate.

4:10:39 PM

MR. SWIFT concurred and said the typical costs for [onshore gas reception] around the world vary from \$50 to \$500 million dollars. He said the cost is very site-determinate.

4:10:58 PM

CHAIR GIESSEL asked whether WM looked at the site the [railbelt] utility collaborative was considering and had reserved for the AK LNG import facility.

4:11:18 PM

MR. SWIFT said WM had not.

4:11:24 PM

MR. SWIFT moved to and narrated slide 12, which states: LNG imports estimated at ~US \$10.2-13.7/mmbtu plus onshore costs downstream of regas, within range of the delivered cost via pipeline. Slide 12 consists of two tables.

MR. SWIFT explained the four components of the first table, "LNG Import cost range per value chain component":

- LNG price - the LNG market prefers contracts linked to a global price, with JKM (North Asian gas price) preferred over JCC (oil-linked contract) and becoming more common.
- Shipping - shipping from Mexico results in a \$1.40 reduction in costs, while shipping from Australia adds \$0.12 to \$0.20.
- Regas - FSRU costs range between \$1 to \$1.50 and often require longer-term commitments, ten to twenty years.
- Onshore reception - cost varies greatly depending on the site

MR. SWIFT explained the second table comparing LNG import cost with the cost of gas delivered by pipeline and made the following observations.

Imported LNG:

- The cost of LNG import rises with onshore reception costs.
- The price range of importing LNG is between \$10.20 and \$13.70 without the dock cost.

- The cost of imported LNG does not decrease with increased demand.

Pipeline delivered Gas:

- The base load pipeline gas price is \$12.80, with incremental demand lowering the price.
 - Industrial demand lowers the price to \$8.97, and additional industrial demand further reduces it to \$2.23.

[4:14:31 PM](#)

SENATOR MYERS said he observed that futures and projections show significant JKM prices over the next decade. He asked whether that was observed by WM and if it was incorporated in the model.

[4:15:04 PM](#)

MR. SWIFT said prices for the model were based on WM long-term forecasts, the most recent for the model would have been the H-2 forecast for both JKM and JCC.

[4:15:34 PM](#)

SENATOR DUNBAR asked whether the \$2.23 price quoted [for pipeline gas] was the marginal price of the average price. He further asked when that average price is achieved if the price included all the capital costs.

[4:16:24 PM](#)

Mr. SWIFT said \$2.23 was the price required to achieve a ten percent return to the pipeline owner based on the level of debt and equity used to build the pipeline. He said that would be the price of gas delivered to the domestic market. He said sales to the domestic market return ten percent to the pipeline owner.

[4:17:10 PM](#)

SENATOR DUNBAR withheld further questions and comment.

[4:17:56 PM](#)

MR. SWIFT sought to clarify that the modeling was based on achieving the required ten percent return on investment.

[4:18:54 PM](#)

SENATOR DUNBAR noted the timeline on slide 9 extended to 2071 and observed that all the gas would not be delivered through the pipeline at the same time. He asked whether the model included all the gas expected to pass through the pipeline through 2071.

[4:19:19 PM](#)

MR. SWIFT concurred. He pointed out that scenarios that consider the possibility that the pipeline operates until 2051 instead of 2071 only increases the rate by \$0.57.

[4:19:54 PM](#)

MR. SWIFT moved to and narrated slide 13. He said WM compared the socio-economic benefits of AK LNG - Phase 1 with the socio-economic benefits of imported LNG to Alaska:

[Original punctuation provided.]

The approach to assess the socio-economics benefits of Alaska LNG Phase 1 considers four components

Components Considered to Assess Socio-Economic Benefits

1. Assess standalone capex by project components:

- **Total Capital Expenditure for Construction**
- Analyze spend directly impacting Alaska
 - Direct impact from increased labor, land, and rights of way activity related to the project
- Additional implied benefit of access to incremental demand and higher probability of AK LNG

2. Assess socio-economic benefits for the lifetime of the project

- Lifetime **operational expenditure** (mostly in-state spend)
- **Government tax** for gas monetization, pipeline operations, and others
- **Direct job creation** by project components
 - Construction phase
 - Operations phase

3. Assess Indirect and Induced benefits

- Benchmark and select input-output **multipliers** for **indirect** and **induced** benefits
- **Quantify Indirect & Induced** impact on **Alaska Gross Value Added (GVA)¹ and jobs**

4. Assess potential for savings with access to low-cost gas supply & other benefits

- Identify expected total state **gas consumption**
- Compare resulting **cost of gas** under base case scenario to alternatives (LNG Imports)
- Project potential for **savings** across the target operating period (2031-2071)
- Include other benefits, such as Fairbanks gas adoption

Alaska LNG Phase 1 development: Socio-economic benefits reflected in GVA, jobs and potential savings

Source: Wood Mackenzie; 1.GVA refers to the lifetime impact on Alaska's GDP

[4:21:20 PM](#)

MR. SWIFT moved to and narrated slide 14, "Gross Value Added for Alaska LNG Phase 1 is estimated at ~US \$10.3 billion, with ~US\$ 9.6 billion of direct economic impact from the Project's investment and operations in-state expenditure". The graph on slide 14 represents the following points:

- Approximately \$6 billion dollars in Capex will be spent in Alaska
- Over the lifetime of the project Opex and Gas monetization are expected to increase economic activity by approximately \$3.7 billion.
- Direct and inducing state benefits are expected to add \$700 billion.
- The total addition to Alaska Gross Value from these impacts is projected to be \$10,335 billion.

[4:22:39 PM](#)

MR. SWIFT moved to and narrated slide 15. A graph on slide 15 illustrates the "Total Economic Impact Estimated for Alaska LNG Phase 1":

[Original punctuation provided.]

With potential implied savings (compared to LNG imports) economic benefits to the state add up to ~US\$ 16.6 Bn

- Gas via pipeline has additional economic benefits over the long term.
- Lifetime savings from the baseload supplied via Pipeline, compared to LNG add up to ~US\$ 5.7 billion
- Savings going back into the economy would also generate indirect and induced impact.
- The pipeline provides potential upside for gas demand and industrial activity
- Overall potential impact to the state of Alaska is estimated at ~ US\$16.5 billion or 2.8x in-state capex

[4:23:41 PM](#)

CHAIR GIESSEL noted that when the first Alaska pipeline was built, there were significant social costs. She said the workforce was imported and the workforce for the proposed LNG pipeline would also require imported workers because Alaska does not possess the required skill set in the proposed timeframe. She said the wages would be exported and the social impacts would include housing requirements, food supply, transportation, etc. She asked how those considerations were factored into WMS project model.

[4:24:37 PM](#)

MR. SWIFT said the impact of social costs on Alaska were divided in two phases, the construction phase and operations phase. He acknowledged that only 60 percent of the jobs are projected by the model to originate in Alaska, with people who have the required expertise coming to Alaska. He said the operational phase will offer more stable long-term employment opportunities.

[4:25:55 PM](#)

CHAIR GIESSEL opined that 60 percent was a very high estimate.

[4:26:20 PM](#)

MR. SWIFT moved to and briefly narrated slide 16 which states "The impact in jobs created from Alaska LNG Phase 1 is 4x larger than the LNG imports alternative mainly due to a larger in-State construction scope." Slide 16 contains two graphs illustrating the expected impacts to the job market in Alaska for the construction phase and operations phase of LNG Imports compared with Alaska LNG - Phase 1.

[4:26:41 PM](#)

MR. SWIFT moved to and narrated slide 17, addressing the difference to Fairbanks that access to the pipeline and gas could make:

[Original punctuation provided.]

The substitution of wood/oil for gas in Fairbanks for its energy needs offers a range of benefits: cleaner air, lower emissions, removal from EPA's nonattainment designation, etc.

Cleaner air

Local emissions from wood stoves and burning distillate oil contribute to particulate pollution

With access to gas, a cleaner alternative becomes available to improve air quality

EPA's nonattainment designation

A portion of the Fairbanks North Star Borough, including the City of Fairbanks, was designated as a PM2.5 Nonattainment Area in December 2009.

By removing the designation, administrative expenses are reduced as the implementation plans to attain and maintain air pollutant emissions are no longer required.

Health

Air pollution has direct consequences in public health

By reducing air pollution, public health expenses may also decrease

Potential access to grants and investment

EPA's nonattainment designation may limit private and/or public investment in the region

Source: Wood Mackenzie and Alaska Department of Environmental Conservation

[4:27:50 PM](#)

CHAIR GIESSEL asked how much the pipeline off-take to allow delivery to Fairbanks would cost.

[4:28:04 PM](#)

MR. SWIFT deferred to Alaska Gasline Development Corporation (AGDC).

[4:28:15 PM](#)

SENATOR MYERS referred to slide 18 and asked whether the baseload case at \$12.80 included a potential tariff for a Fairbanks) spur line and the Capex for expanding the natural gas network in the Fairbanks area.

[4:28:41 PM](#)

MR. SWIFT said \$12.80 was the cost of delivered gas to the spur line. He said there would have to be an extra tariff to move gas from the main pipeline to the spur line and to Fairbanks.

[4:29:01 PM](#)

CHAIR GIESSEL said slide 17 and 18 were not relevant to WM's estimate because of the costs that were not taken into account.

[4:29:16 PM](#)

MR. SWIFT agreed and said the costs that WM accounted for related to the Anchorage region and not to Fairbanks.

[4:29:55 PM](#)

CHAIR GIESSEL noted WM's model did not take into account the Capex for expanding the gas infrastructure in Fairbanks or the tariff for the off-take. She suggested, therefore, that slides 17 and 18 were not relevant to the study.

[4:30:25 PM](#)

MR. SWIFT moved to slide 18, however the telephone connection became significantly unstable and difficult/impossible to discern.

[4:32:04 PM](#)

CHAIR GIESSEL noted the disruption to the transmission was too significant to continue.

[4:32:14 PM](#)

At ease.

[4:32:23 PM](#)

CHAIR GIESSEL reconvened the meeting.

[4:32:34 PM](#)

MR. SWIFT attempted to move to slide 19, however the connection could not be re-established.

[4:33:00 PM](#)

CHAIR GIESSEL concluded the presentation, guiding the committee to read through the summary slide 19:

[Original punctuation provided.]

Gas supply via pipeline provides over ~US\$10 Bn of positive economic impact, 2 - 4x more jobs, and access to lower delivered costs vs LNG imports, though it requires higher capex

- **Cook Inlet gas supply has declined, and despite exploration efforts by operators, no new volumes have been discovered**
- Lack of reliable and affordable gas supply drove **decline in demand**, however going forward **supply** is expected to **drop faster** creating a **demand gap of ~2.3 tcf** (to 2071) projected to begin by the end of this decade
- With Cook Inlet gas production proving to be challenging, there are **two main alternatives** to address the forecasted **supply & demand gap**:

Natural Gas Supply via Pipeline

A 765 mile (Phase 1), 42-inch diameter pipeline connecting the Southcentral Alaska region with the North Slope fields

- Cost of delivered gas in the **US\$2.23 - \$12.8/mmbtu**
- Direct, indirect and induced GVA: **~US\$ 10.3 Bn**
- **2,271 jobs¹** created during construction and **1,138 in operations**
- Time to first gas 2031³
- Provides access to **upside demand** with additional industrial and economic benefits to the state
- **Reducing emissions and removal from EPA's nonattainment in Fairbanks** via substitution of oil & wood as primary energy source
- Higher **likelihood of full Alaska LNG Project**

LNG Imports

Gas imports via LNG, for which regas and further downstream infrastructure is required

- Cost of delivered gas in the **US\$10.2 - \$13.7/mmbtu (plus onshore costs)**
- Lower capex & lower direct, indirect and induced GVA **~US\$0.6 - 1.4 Bn ■ 568 jobs¹** during construction and 250 in operations
- 3-4 Years post FID², though no major permit applications have been submitted. Permitting and/or required buildout could delay first gas
- Focused supply for the Southcentral region
- No Fairbanks or additional industrial demand
- Exposure to higher price volatility for energy needs

Source: Wood Mackenzie; 1. Direct, indirect and induced jobs, average per year of each period; 2. First gas for LNG imports is dependent on receiving all required permits, and Wood Mackenzie is uncertain about the status of those. Additionally, as of March 2024, Enstar's (local gas distributor) earliest estimation of first gas is 2029. 3. The AGDC has indicated that the pipeline has all major permits in place

PRESENTATION(S) : ALASKA GASLINE DEVELOPMENT CORPORATION REPORT

[4:33:17 PM](#)

CHAIR GIESSEL announced the presentation, Alaska Gasline Development Corporation, by Frank Richards.

[4:33:46 PM](#)

FRANK RICHARDS, President, Alaska Gasline Development Corporation (AGDC), Anchorage, Alaska, said he was pleased to present this progress update for the AK LNG project. He reiterated the Wood MacKenzie assertion that AK LNG Phase One pipeline would be able to deliver long-term energy needs to Alaskans and set the stage for future economic growth from exports.

[4:34:20 PM](#)

MR. RICHARDS moved to and narrated slide 2:

[Original punctuation provided.]

AGDC

The Alaska Gasline Development Corporation (AGDC)

- Independent, public corporation owned by the State of Alaska (SOA)
- Created by the Alaska State Legislature

Mission

- Maximize the benefit of Alaska's vast North Slope natural gas resources through the development of infrastructure necessary to move the gas to local and international markets

Current Owner and Developer of the Alaska LNG Project

- Transitioning project to private ownership under qualified developers

[4:34:53 PM](#)

MR. RICHARDS moved to and narrated slide 3. Slide 3 includes a map of Alaska and illustrates the proposed path of the AK LNG pipeline:

[Original punctuation provided.]

Alaska LNG Overview

North Slope Gas Supply

- 40 Tcf of gas reserves in PBU and PTU
- 122 Tcf of total "Proved Producing Reserves" in Alaska*
- Early Supply from Great Bear Pantheon

Arctic Carbon Capture (ACC)

- Adjacent to existing PBU gas plants, will remove and sequester CO₂ from raw gas stream and condition gas to LNG specifications

Natural Gas Pipeline

- 807-mile pipeline from Prudhoe Bay to Nikiski, follows existing oil pipeline and highway system, with gas delivered to Alaska communities and the LNG plant

Alaska LNG Facility

- 20-MTPA LNG facility located in Nikiski near the legacy Kenai LNG Plant

*https://www.eia.gov/naturalgas/crudeoilreserves/pdf/T_able_8.pdf

[4:35:26 PM](#)

MR. RICHARDS said the foundation of the AK LNG plan was the forty trillion cubic feet of proven [natural gas] reserves in Prudhoe Bay and Point Thompson with an additional 122 trillion cubic feet of proven producing reserves in Alaska as reported by the energy information office. He said this does not include Great Bear Pantheon's assets.

[4:35:58 PM](#)

MR. RICHARDS moved to and narrated slide 4. He said Phase One includes just the mainline pipe from the North Slope to Southcentral Alaska with the off-take for Fairbanks to allow utilization of existing gas resources and provide the lowest cost gas to Alaskans at the lowest possible cost. The pipeline would be the full 42 inch diameter pipe permitted through the AK LNG project. He said the concept for the AK LNG project was based on using the Great Bear Pantheon produced gas. He noted the carbon dioxide (CO2) content of Great bear Pantheon gas was less than 0.5 percent as opposed to gas from Prudhoe Bay and Point Thompson which had significantly higher CO2 content, requiring treatment to achieve pipeline quality. He emphasized that the AK LNG project has been fully permitted and integrated through the Federal Energy Regulatory Commission, and Environmental Impact review and other federal authorizations:

[Original punctuation provided.]

Phase 1 of Alaska LNG

Alaska LNG is a **fully permitted** integrated LNG export, pipeline, and gas treatment project

Phase 1 is the pre-build of the pipeline from the North Slope of Alaska to Southcentral Alaska

Phase 2 is the construction of North Slope gas treatment and LNG export facilities

By phasing Alaska LNG, Alaska can utilize existing permits to quickly provide gas for Alaskans and provide infrastructure for future LNG exports and industrial use

[4:37:17 PM](#)

MR. RICHARDS moved to and narrated slide 5. He said AGDC came before the Alaska legislature in 2024 to talk about the potential of the AK LNG Phase One project and that it would require a major pipeline company to come in and execute front-end engineering and design, including cost estimates, execution plans, and labor studies to be sure the project could be developed economically:

[Original punctuation provided.]

2024 Legislative Intent Language

"It is the intent of the legislature that the Alaska Gasline Development Corporation continue to work towards meeting the critical energy needs of Alaskans by advancing a pipeline project proposal which would deliver North Slope natural gas to Alaska's utilities, businesses, and homeowners. Further, it is the intent of the legislature that the Alaska Gasline Development Corporation complete an independent third-party review of a project proposal that would commercialize North Slope gas and present that analysis to the legislature by December 20, 2024. **It is the further intent of the legislature that if analysis shows a positive economic value to the state, all parties would work toward Front End Engineering and Design for Phase 1 of a pipeline project.**"

At the direction of the Alaska Legislature, Wood Mackenzie was contracted to complete an independent third-party economic assessment of the Alaska LNG Phase 1 Pipeline.

The analysis shows a positive economic value to the state.

[4:38:19 PM](#)

SENATOR MYERS asked why AGDC was requesting \$50 million backstop funding from Alaska Industrial Development and Export Authority (AIDEA) or the state directly if the economics look so promising.

[4:38:32 PM](#)

MR. RICHARDS said the \$50 million backstop was initiated by North American Pipeline Services to advance the entire pipeline project, including compressor stations and the Cook Inlet crossing. He said the pipeline company wanted assurance that

they would be reimbursed for their engineering efforts if the project does not proceed to a final investment decision. He explained that the pipeline company would execute preliminary work, contract with engineers and construction contractors, and obtain cost estimates from pipe mills at their expense. He said the state of Alaska would then decide whether to proceed with a final investment decision. If the project moves forward, the \$50 million will be returned to either AIDEA or the state of Alaska. If the project does not proceed, the backstop would cover the pipeline company's costs. He said this approach was common in the pipeline industry, ensuring that companies have cost recovery assurance before proceeding with major projects.

[4:40:25 PM](#)

SENATOR MYERS asked who normally provides that backstop funding according to industry standard.

[4:40:36 PM](#)

MATT KISSINGER, Senior Principal, New Business Ventures, Alaska Gasline Development Corporation (AGDC), Anchorage, Alaska, explained that it was standard practice in major oil and gas projects for the project sponsor to provide financial backing, a "backstop," to the pipeline company. He said this helps keep the cost of equity low for the pipeline company, which typically seeks low-risk, low-return investments to manage the high binary risk associated with development phases. The state, as the project sponsor, would assume the higher cost of capital.

[4:41:35 PM](#)

SENATOR CLAMAN said, in the more traditional gas market, it would be the party that owns the gas, in this case the oil companies, who would be the ones fronting the \$50 million for the pipeline. He said it would be the oil companies selling the gas, it wouldn't be the local state that might benefit from the gas for its residents to get the gas, it would be the owner of the resource.

[4:42:12 PM](#)

MR. KISSINGER said that, in some cases it would be the upstream parties, but in a lot of cases it would be the downstream parties that would provide that support. In this case, he said, the downstream parties who would benefit from the first \$200 million are ultimately the residents of Alaska.

[4:42:30 PM](#)

SENATOR CLAMAN said, in the traditional model, it would be the utilities who would be providing the money for development and

later selling the gas to their customers. He said it wouldn't be the customers putting up the money for development.

[4:42:53 PM](#)

MR. KISSINGER said it was often the utility company. He also said when an owner-state or country was involved, the country would [provide the backstop funding]. He offered to provide examples for the committee.

[4:43:08 PM](#)

SENATOR CLAMAN asked whether it was correct that the Wood MacKenzie study was funded by AGDC.

[4:43:21 PM](#)

MR. RICHARDS said it was the governor's office who funded the Wood MacKenzie study.

[4:43:27 PM](#)

SENATOR CLAMAN asked whether the details of the study were arranged by AGDC.

[4:43:31 PM](#)

MR. RICHARDS said the intent and desire for [the Wood MacKenzie study] came from a meeting with senate leadership, house leadership and co-chairs of the finance committees of both bodies with the governor. He said it was at that time the governor said he would be willing to fund the third party independent analysis by an outside consultant.

[4:43:57 PM](#)

SENATOR CLAMAN asked whether AGDC coordinated [with the governor's office] to determine what questions to ask and how the questions would be answered.

[4:44:10 PM](#)

MR. RICHARDS said AGDC contracted with Wood MacKenzie (WM) and gave them the broad scope of the economic evaluation based on the intent language provided by the legislature.

[4:44:24 PM](#)

SENATOR CLAMAN sought to clarify his question. He noted the number of questions asked during this presentation that were not answered or addressed by the WM study. He said the difference in cost for the AK LNG project, \$40 billion vs. \$11 billion, was a wide gulf and it seems like a lot of cost factors were not built in to the questions that were asked in the contract [with WM].

He said the WM doesn't really help very much because there appear to be a lot of costs that aren't factored in.

[4:45:28 PM](#)

MR. RICHARDS said the intent was to provide answers to the questions around Phase One of the AK LNG project, specifically looking at the pipeline to deliver gas for Alaskans. He said the study could have been expanded to include the entirety of the AK LNG project, but that was not the goal. He said the goal was to develop a pipeline project designed to meet Alaskans' needs as opposed to looking at the cost of importing LNG and ultimately looking to see whether [AK LNG - Phase One] was going to have good economic value to the state of Alaska.

[4:46:09 PM](#)

MR. RICHARDS said WM assessed the overall AK LNG project for AGDC in 2021-2022. They calculated a cost of supply of approximately \$6.75 per unit, which included extraction, treatment, pipeline, liquefaction, and shipping costs. He said this cost compared favorably to market rates in the Japan Korean market (JKM) and against oil-linked contracts and Henry Hub, suggesting that the AK LNG project would be commercially viable and cost-competitive. He reiterated that the goal was to ensure the project met Alaska's needs and provided economic value to the state.

[4:47:33 PM](#)

SENATOR MYERS asked whether AGDC consulted with the downstream utilities and what their position toward the AK LNG project was.

[4:47:49 PM](#)

MR. RICHARDS said AGDC consulted the utilities with regard to their need for a steady supply [of gas]. AGDC offered the components of the AK LNG project that would help meet their needs. He said the utilities are rate-based and for them to go on record and hold a \$50 million chit was going to be more than they could afford.

[4:48:38 PM](#)

CHAIR GIESSEL noted that the goal of the [WM] study was to determine the cost of getting gas to Alaskans, yet it did not include the cost of getting gas to Fairbanks. She noted the extra steps required between Nikiski and Fairbanks and proposed that the project as described wouldn't help Fairbanks.

[4:49:12 PM](#)

MR. RICHARDS said the legislature directed AGDC to develop an in-state pipeline with a lateral into Fairbanks under the Alaska standalone pipeline project. He said after completing front-end engineering design and securing rights of way and permits, AGDC is ready to proceed.

MR. RICHARDS explained that the AK LNG project was different. It included the off-take, but not the lateral [pipeline section] leading into Fairbanks. He said there would be an updated cost estimate for about 32 miles of pipe leading to a location near the university called city gate. He said it was assumed the Fairbanks utility would then take on the distribution of the natural gas from city gate to the residents of the Fairbanks North Star Borough.

[4:50:23 PM](#)

CHAIR GIESSEL noted that she was present when AGDC provided the in-state pipeline numbers.

[4:50:30 PM](#)

SENATOR DUNBAR sought to focus on the \$50 million backstop. He asked for clarification about what would happen to those funds. He asked whether there was a possibility that AGDC would approach the legislature asking additional funds in the future to prevent losing the initial \$50 million backstop and get the project to a final investment decision (FID).

[4:51:21 PM](#)

MR. RICHARDS said Glenfarne would serve as the lead developer in the Alaska LNG project with an estimated capital commitment of \$150 million. Prior to Glenfarnes commitment, Mr. Richards approached the legislature [in 2024] to request a \$50 million backstop. He explained that AGDC had yet to sign definitive agreements [with Glenfarne] and intended to meet the legislative directive to secure gas for Alaskans. He said it appeared Glenfarne's participation would add value and lower costs for Alaska and ADGC was working with [Alaska Industrial Development and Export Authority] (AIDEA) on a development finance agreement.

[4:53:02 PM](#)

SENATOR DUNBAR asked whether Glenfarne would be bringing the mentioned \$150 million investment or if the state was expected to pay that to Glenfarne.

[4:53:12 PM](#)

MR. RICHARDS said it would be the developers who would bring that money to the table. The commercial negotiations AGDC entered into were in recognition of the tremendous wealth and resources Alaska has put into moving [an LNG pipeline project] forward. He said AGDC developed the project and is prepared to move forward with the state of Alaska as a minority owner. The next phase of work is to be covered by the developers.

[4:53:58 PM](#)

SENATOR WIELECHOWSKI noted that in prior AGDC board meetings Goldman Sachs was reported to be vetting private party candidates for the [pipeline] project. He asked whether Goldman Sachs recommended Glenfarne as a preferred candidate.

[4:54:17 PM](#)

MR. RICHARDS said Goldman Sachs worked with AGDC for a couple years and introduced them to potential development partners, financiers and international oil companies. AGDC also went out independently and engaged with other parties who had the wherewithal, the interest and the balance sheets to move the project forward. He said AGDC was first introduced to Glenfarne under their own volition.

[4:54:55 PM](#)

SENATOR WIELECHOWSKI asked whether AGDC ascertained Glenfarne's source of funds.

[4:55:01 PM](#)

MR. RICHARDS said due diligence had been done and was continuing.

[4:55:11 PM](#)

SENATOR WIELECHOWSKI asked whether the AGDC board of directors approved the selection of Glenfarne for exclusive negotiations.

[4:55:17 PM](#)

MR. RICHARDS said AGDC informed the board of directors that they were engaged in negotiations with Glenfarne via a letter of intent. He said the decision whether to accept Glenfarne as a partner will ultimately be made by the AGDC board of directors.

[4:55:34 PM](#)

SENATOR WIELECHOWSKI said he interpreted that answer as a "no" and asked whether the AGDC board of directors approved of the execution of the Glenfarne exclusivity contract and whether there was a resolution to that effect.

[4:55:44 PM](#)

MR. RICHARDS said the AGDC was informed.

SENATOR WIELECHOWSKI pressed, asking whether the board approved this.

[4:55:51 PM](#)

MR. RICHARDS said there was not a resolution from the board directing AGDC to sign the letter of intent.

[4:56:02 PM](#)

SENATOR WIELECHOWSKI noted that statute stipulates the attorney general acts as legal counsel for AGDC. He asked whether the attorney general prepared, reviewed or approved the exclusivity agreement with Glenfarne.

[4:56:13 PM](#)

MR. RICHARDS said AGDC engaged with the attorney general and with outside counsel on the letter of intent.

[4:56:26 PM](#)

SENATOR WIELECHOWSKI asked whether Glenfarne had developed any large pipelines or completed any United States LNG projects.

[4:56:34 PM](#)

MR. RICHARDS said Glenfarne owns pipelines in South America, an LNG import facility, and they currently own two projects, one in Texas and one in Louisiana that are yet to go to construction.

[4:56:48 PM](#)

SENATOR WIELECHOWSKI noted that Glenfarne acquired ownership in two stalled LNG projects and had yet to advance them to closure. He asked whether these projects would be competing with the Alaska LNG project.

[4:56:59 PM](#)

MR. RICHARDS said the Texas LNG project was fully subscribed with by off-take from large U.S. natural gas developers and by utilities in Europe. He said all of the contracts will be to supply LNG to the utilities in the European basin, not to the Asia-Pacific.

[4:57:27 PM](#)

SENATOR WIELECHOWSKI asked whether Glenfarne had indicated that were willing to put the Alaska project as their top priority for development.

[4:57:41 PM](#)

MR. RICHARDS affirmed that it had.

[4:57:46 PM](#)

SENATOR WIELECHOWSKI noted the statute stipulated that a contract negotiated under Alaska law must include the requirement that the state shall have access to data developed under the agreement on the same or substantially similar terms applicable to any other party in a north slope natural gas project. He asked whether the Glenfarne agreement included such a provision.

[4:58:07 PM](#)

MR. RICHARDS said he did not recall that specific language, so he would have to go back and look at the contract.

[4:58:18 PM](#)

SENATOR WIELECHOWSKI asked whether any Alaska companies were considered to lead the project and, if so, were they given an opportunity to submit a proposal.

[4:58:24 PM](#)

MR. RICHARDS said AGDC had been out marketing the LNG project for a number of years and had received some proposals, including one from an Alaska group. He said it fell back to a determination of whether they qualified financially or had the financial capabilities to execute the project.

[4:58:44 PM](#)

SENATOR WIELECHOWSKI asked how this group fell short.

[4:58:53 PM](#)

MR. RICHARDS asked whether there was a specific group the senator was asking about.

SENATOR WIELECHOWSKI said Mr. Richards said there was another group. He asked who the other group was and how they fell short.

[4:59:03 PM](#)

MR. RICHARDS said AGDC was approached by a group that included former governor Walker, former AGDC president Keith Meyer, and others who proposed partnering with AGDC. He said the challenge was that the funding available to them was a commitment to AGDC.

[4:59:47 PM](#)

SENATOR WIELECHOWSKI said there was apparently funding available and asked what the problem with a funding commitment to AGDC presented.

[4:59:59 PM](#)

MR. RICHARDS said there was not sufficient funding available. He said the funding available was single digits of millions of dollars, not hundreds of millions.

[5:00:21 PM](#)

SENATOR WIELECHOWSKI asked whether Glenfarne had more funding available.

MR. RICHARDS affirmed that Glenfarne had more funding available.

SENATOR WIELECHOWSKI asked how much.

[5:00:35 PM](#)

MR. KISSINGER explained that AGDC was under confidentiality agreement constraints and could not provide the exact amount, however he confirmed that Glenfarne has sufficient cash on hand to meet the commitment they are making to take the project to [final investment decision] (FID).

[5:01:00 PM](#)

SENATOR WIELECHOWSKI asked how much it would cost to take the [AK LNG] project to FID.

[5:01:05 PM](#)

MR. KISSINGER said AGDC's estimate was \$150 million.

[5:01:19 PM](#)

CHAIR GIESSEL noted comments about Alaska's investment in the LNG pipeline and said it was estimated the state had appropriated approximately \$650 million dollars to advance the project so far. She noted that did not include the decade and a half of staffing AGDC.

[5:02:16 PM](#)

There being no further business to come before the committee, Chair Giessel adjourned the Senate Resources Standing Committee meeting at 5:02p.m.