

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

March 26, 2019
10:16 a.m.

MEMBERS PRESENT

Representative Grier Hopkins, Chair
Representative Zack Fields, Vice Chair
Representative John Lincoln
Representative Ivy Spohnholz
Representative Tiffany Zulkosky
Representative Lance Pruitt
Representative George Rauscher

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION: IT'S NOT OUR FAULT - ALASKA LNG & THE GLOBAL PERSPECTIVE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

LARRY PERSILY
Juneau, Alaska

POSITION STATEMENT: As former federal coordinator of Alaska North Slope Gas Pipeline projects, presented a PowerPoint, titled "It's not our fault there is no gas line."

ACTION NARRATIVE

[10:16:10 AM](#)

CHAIR GRIER HOPKINS called the House Special Committee on Energy meeting to order at 10:16 a.m. Representatives Hopkins, Pruitt, Lincoln, Rauscher, Spohnholz, Fields, and Zulkosky were present at the call to order.

**PRESENTATION: IT'S NOT OUR FAULT - ALASKA LNG & THE GLOBAL
PERSPECTIVE**

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CHAIR HOPKINS announced that the only order of business would be a presentation by Larry Persily, former federal coordinator for Alaska North Slope gas pipeline project.

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LARRY PERSILY, as former federal coordinator of Alaska North Slope Gas Pipeline projects, explained that his position had been to "encourage and help get an Alaska North Slope gas pipeline built." He noted that he was one of the few people who had closed down a federal agency and shared a story regarding his contact with the General Services Administration (GSA) after notification that his agency would be closed. When he asked the GSA what to do, the reply was: "I don't know. We've never done that before. We're not sure what to do." He stated that there had been work done to build a North Slope gasline for many years, reporting that since 2001 the State of Alaska had spent more than \$900 million on various iterations of the project, including the Alaska Natural Gas Development Authority and the Alaska Gasline Inducement Act.

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REPRESENTATIVE RAUSCHER asked for whom Mr. Persily was speaking.

MR. PERSILY explained that he was speaking for the State and Alaskans, as a whole, and stated that this included multiple agencies, governors, legislators, and the people of Alaska. He reported that there had been a voter mandate to approve a state built gasline and noted that there had been more than \$300 million spent on a subsidy for the Alaska Gasline Inducement Act. He pointed to the Alaska Stand Alone Pipeline and the Alaska Gasline Development Corporation. He stated that, as a lot of money had been spent on these projects, it was not for lack of spending that there was not a gasline. He emphasized that it was necessary to understand that nothing was guaranteed about liquified natural gas (LNG) as just because you built something did not guarantee it would turn out as expected. He offered an example of a 20-year contract between Toshiba and an LNG export terminal in Texas. He shared the history of global LNG since 1964 with cargo from Algeria, reporting that everything had been long-term and stable, with no spot markets

or short-term trades, and it had paid off over time. Starting 20 years ago, the market really grew, especially in Qatar and Australia, and now "everybody has wanted to get into the LNG trade and that's kinda where we are today."

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MR. PERSILY paraphrased from slide 2, "No matter where we turned...", which read:

Markets well supplied 1970s, 1980s and 1990s, while higher value to North Slope gas pushing out more oil

North America looked possible in 2000s, until shale

Asia looked possible in 2010s, until every supplier in the world saw the same LNG market opportunities

MR. PERSILY pointed out that the Alaska North Slope producers had been using the gas to force out more oil, which was the highest and best use of that gas during that time, and it made Alaska and the companies a lot of money. He reported that shale oil "ended any hopes of getting Alaska gas into North America." He offered an example of Pennsylvania gas, which would supply an equivalent of seven Alaska LNG projects. In January, North Dakota flared half a billion cubic feet of gas daily, twice as much as would be used by Southcentral Alaska, as they did not have the pipelines to send it anywhere.

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MR. PERSILY moved on to slide 3, "Alaska: The \$43 billion question," and paraphrased the slide, which read:

Competition: Too many other less risky, lower-cost and ready-to-go projects are lined up before Alaska

Demand: Growth is starting to slow down in China

Missing pieces: Project lacks far too many essential parts to reach investment decision for several years

MR. PERSILY reported that there was a lot of stranded gas in the world, and a lot of it was cheaper to get.

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REPRESENTATIVE PRUITT pointed to the continued building of coal plants in China which produced a lot of pollution and asked if these newer plants offered an opportunity to transition in five or ten years to "stem that tide" of pollution.

MR. PERSILY replied that a China state investment corporation had recently announced that there would not be financing for any new coal power plants. He expressed agreement that once the existing plants reached the "end of their life, there's more opportunity, but what else will China do between now and then." He reported that China had a lot of shale gas and although they preferred to buy locally, they had not solved a way to produce it economically.

REPRESENTATIVE PRUITT reflected that China made change, not because of pressure from the rest of the world, but because of internal pressure. He asked if the demand for change within China would be a driving force.

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MR. PERSILY expressed agreement that pollution drove decisions although the shift to gas was not supported by the ability to deliver gas to the communities. He shared a concern that economics was still part of the decision-making process and that, as coal was really cheap, the price was an issue for gas to compete with coal.

CHAIR HOPKINS asked to explain the difference between spot market and long-term market.

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MR. PERSILY stated that most long-term contracts for LNG were priced against a barrel of oil on an energy equivalent basis, with about 6 million BTUs per barrel of oil. He pointed out that, as this was a long-term contract, the market supply and demand was not an issue. He explained that the spot, or short-term, market was based on what was currently available. He said that more customers were now going to spot market, but that could shift in the winter months.

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MR. PERSILY paraphrased slide 4, "The competition," which read:

Qatar: World leader plans 43% expansion by 2024

Australia: Now with 10 LNG plants, totaling 25% of global capacity after \$200 billion investment boom

Russia: Decision this year on second Arctic LNG plant

Mozambique: Total output could exceed Alaska LNG

MR. PERSILY reported that Qatar was losing its title as world leader to Australia, although Qatar was looking toward expansion. He suggested to look at who the partners were in these investments.

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REPRESENTATIVE FIELDS asked about the structure of the projects in Qatar and Australia.

MR. PERSILY explained that the projects in Australia were [indisc] and that in Qatar, although the projects were state owned, the liquefaction projects were partnerships with private corporations.

REPRESENTATIVE FIELDS asked if these projects were still making money.

MR. PERSILY replied that the cost of production in Qatar was very low. He said the largest gas to liquids plant in the world was in Qatar, and that, essentially, they were getting the gas for free. He reported that, in Australia, even though there was no government equity, there were tax breaks or incentives. He said that a project was allowed to recover its full capital expense before paying tax. He relayed that Russia had been a bit player but that it had just opened its second Arctic LNG plant, and were looking at further expansion.

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REPRESENTATIVE SPOHNHOLZ asked whether Russia was building gas pipelines similar to the proposed Alaska gas pipeline.

MR. PERSILY replied that the plants were located near the gas field in order to allow for a short pipeline. He noted that the proposed Alaska project was for an 870-mile pipeline, and that "nobody comes close to that."

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MR. PERSILY directed attention to slide 5, "And the list goes on," and paraphrased [indisc] from the slide, which read:

Papua New Guinea: Decision anticipated this year on \$13 billion project to more than double capacity

Shell-led LNG Canada project under construction; partners from China, Malaysia, Japan, South Korea

U.S. will have six LNG export terminals by late 2019

CHAIR HOPKINS asked about resolution with First Nation tribes.

MR. PERSILY replied that there was not yet resolution with all, but that there were benefit agreements signed with "a couple dozen of the First Nations." He shared a dispute within one First Nation whereby the elected council had supported the pipeline but the hereditary chiefs had not agreed and were maintaining a protest camp along the pipeline route. He offered his belief that this would be resolved, noting that the length of this proposed pipeline was 416 miles. He reported that the British Columbia government was "scrapping a special LNG profits tax that the previous government had put in" and was going to exempt the project from sales tax during construction, estimated at a \$600 million savings, as well as offering performance payments with no interest to accrue, exempting the project from any future increase in carbon tax, providing electricity at the lowest cost industrial rate, and offering a 3 percent credit on corporate income tax for any gas bought for the project. He stated that "this is a fact of life in the competitive world out there."

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MR. PERSILY shared slide 6, "More coming from Gulf Coast," and paraphrased the slide, which read:

ExxonMobil and Qatar Petroleum have decided to build \$10 billion Golden Pass LNG project in Texas

Sempra Energy has its final EIS for Port Arthur, Texas

Cheniere likely to expand Sabine Pass to serve China

Possible decisions late 2019 for two more LNG plants

CHAIR HOPKINS asked about LNG passage through the Panama Canal.

MR. PERSILY replied that since the canal expansion almost anything other than the largest LNG carriers were allowed to pass. He pointed out that, although there was a toll for the canal passage, cheap gas then liquefied at a low price would "cover the toll." In response to Chair Hopkins, he agreed that this was based on U.S. prices.

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MR. PERSILY moved on and paraphrased slide 7, "U.S. Gulf/East Coast advantages," which read:

Of the six export projects that will be operating by the end of 2019, five were unused LNG import terminals

'Brownfield' developments with storage tanks, berths are less costly than 'greenfield' LNG export terminals

Gulf Coast access to world's most traded gas supply

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MR. PERSILY discussed slide 8, "Construction costs worldwide," which read:

Average capital cost for new liquefaction capacity
2008-2017: \$1,501/tonne for 'greenfield' projects and
\$458/tonne for expansions, 'brownfield' projects

Middle East (Qatar): Under \$400/tonne 2008-2017

Alaska: \$2,150/tonne (\$43 billion, 20 million tonnes)

MR. PERSILY pointed out that discussion of capital cost was per tonne of capacity, noting the difference of almost three times the cost between "brownfield" projects and "greenfield" projects. He pointed out that more than 800 miles of pipe and high construction cost made the cost of LNG per tonne in Alaska "outside of the range of others, that's something we need to work on."

REPRESENTATIVE SPOHNHOLZ asked about the causes for the primary cost overruns in Australia.

MR. PERSILY offered his belief that this was a result of poor planning and rushing in by the companies as they embarked on construction of six different projects at the same time. This put tremendous pressure on wages, supplies, and services. He added that there was not any cooperation for sharing pipes or facilities, and that they had tried to do too much at one time.

REPRESENTATIVE SPOHNHOLZ said that this underscored the strategic value of slowing down and being more deliberate with a gasline.

MR. PERSILY expressed his agreement and noted that most projects spent years in preliminary design and planning to know the actual costs.

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MR. PERSILY paraphrased slide 9, "Global demand projections," which read:

Annual demand to grow 125 million tonnes from 2020 to 2030; average of 12 independent forecasts

Final investment decisions approved or anticipated 2018-2020 for 130 million tonnes of new capacity in Qatar, Mozambique, PNG, Russia, Canada, U.S. Gulf

Strong demand growth would require even more LNG

MR. PERSILY spoke about a presentation by the biggest lender in Africa, Standard Bank, on the Mozambique LNG project, which combined a dozen different independent forecasts of global LNG demand and reflected LNG growth equal to more than six Alaska LNG projects. He stated that no one builds an LNG project on speculation, hoping that the market will be there as the market can shift so quickly.

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REPRESENTATIVE FIELDS asked about the average length of time from conception to final investment decision.

MR. PERSILY, in response, said that from field discovery to production was often more than 25 years. He declared that these were big risks that took a lot of time.

REPRESENTATIVE FIELDS asked how common it was for a trade-off of production of more oil versus getting the gas to market, similar to the situation in Alaska.

MR. PERSILY replied that there was not much trade off if there was only a gas field.

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MR. PERSILY shared slide 10, which read:

China's gas demand is forecast to grow 11% in 2019,
down from 15% growth in 2017 as economy weakens

China pushing for increased domestic gas production

Power of Siberia gas line on track for December 2019;
could fill 15% of China's gas import demand by 2023

MR. PERSILY pointed out that, although China had a lot of shale gas, it was not by the urban industrial centers, so the economics of shale was still challenging in China.

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MR. PERSILY explained slide 11, "Buyers watch the price of LNG," which read:

Major Chinese importers lose money on LNG buys

India a big growth market, but most price sensitive

Low price builds demand, but limits new investment

Citizens support drive to clean up the air but cannot
afford too much more for cleaner gas over dirty coal

MR. PERSILY pointed out that after the nuclear plant meltdown and the subsequent shut down of more than 50 nuclear plants in Japan, the price of gas had spiked more than three times the price in Alaska and ten times the price in the Lower 48. He reported that PetroChina lost about \$1.50 for every million BTU in the last year because the government had set the sales price, while the company had to pay market price. He stated that new LNG projects had to decide when to come onto the market in order to build demand.

REPRESENTATIVE RAUSCHER reflected on an early estimate to build the gasline for about \$3 billion, whereas today the estimated cost was \$40 billion. He pointed out that the price kept increasing and asked whether it was worth building the gasline just to "get in the game" and not for timing the market. He asked if that had any bearing and did it "come into play somewhere."

MR. PERSILY shared that the original estimate for the Trans-Alaska Pipeline System (TAPS) was under \$1 billion, whereas the final cost had been \$8 billion. He mused that the early estimate may have thought that the CO2 could have been vented into the atmosphere, which was no longer allowed, and not have to pay that cost. He asked, "how deep is your pocket." He allowed that there were some projects worldwide with no long-term sales contracts, as the project manager thought that they could gamble and sell the contracts in the future. He stated that it would be companies similar to Exxon, which could afford to do this. He declared that this would be very risky for the State of Alaska. He shared a story of gas in Equatorial Guinea.

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REPRESENTATIVE PRUITT directed attention to slide 11, and asked about India, noting that although it would surpass China in population, it struggled to develop. He asked about the future gas market in India.

MR. PERSILY added that Egypt was also a growth market but noted that India was more price sensitive as they did not have the money. He compared India and China as the governments set the price for a domestic producer to sell gas. This could cover the price of gas from an old gas field but not from a new gas field. If the price was lifted, it could increase domestic production, but consumers could balk at paying. He pointed out that Alaska was well positioned to sell gas to China, but for India it was more economical to buy gas from Mozambique or the Middle East.

CHAIR HOPKINS asked if India had any priority to have LNG imported versus a pipeline for gas.

MR. PERSILY stated that India did not have enough pipelines to move the gas around the country. He said they were buying it from Qatar and, as their long-term contracts were newer, they offered better prices.

CHAIR HOPKINS asked whether it would make any difference for India to have a gas pipeline from Siberia versus bringing the LNG import facilities on-line.

MR. PERSILY offered his belief that it would not make a difference. He estimated that the cost of developing the gas fields in Eastern Siberia and a pipeline to China was about \$50 billion.

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MR. PERSILY, slide 12, "More Uncertainties"

Japan restarting more nuclear plants; LNG imports flat at best and likely to decrease in the years ahead

Egypt stops LNG imports; back in the export business

Russia looks to build in the Arctic, Far East and Baltic

Will politics and trade fights weaken world economy?

MR. PERSILY reported that, as Japan was not a growth market, LNG demand had started to drop. He noted that Egypt had been an LNG exporter for a decade but had run into domestic production problems and was currently importing gas, although they had re-started production. He added that Russia was "becoming a huge player in the market."

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MR. PERSILY spoke about slide 13, "Global LNG financing," which read:

It's not unusual for two dozen banks to take slices of long-term financing for a new LNG export project

Train 5 at Sabine Pass: 25 banks loaned \$2.85 billion

Average bank loan on LNG projects: \$256 million, \$300 million, \$381 million in 2014, 2015 and 2016

MR. PERSILY declared that it was unusual for one lender to extend more than \$1 billion as it was too risky. He referenced a bank study which showed that 15 LNG export projects financed between 2005 - 2016 had an average debt load of 65 percent, with

owner equity of 35 percent. He pointed out that lenders "like to see that you have some of your own cash in there."

MR. PERSILY discussed slide 14, "China's growing finance role," which read:

China's \$6 billion 2016 bank financing for Yamal LNG in the Russian Arctic was the largest project loan ever

Plus \$6 billion from Export-Import Bank of China

U.S. sanctions pushed Yamal to look toward China

In 2015, Chinese banks loaned just \$750 million

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MR. PERSILY paraphrased slide 15, "State overly focused on China," which read:

China playing the world market for the best deals

"They come, they do their due diligence, they kick the tires." – Louisiana LNG developer on Chinese buyers

"I think China will continue to grow, but China has a lot of choices in terms of energy." – JERA chairman

MR. PERSILY reported that the tremendous growth in China would not continue at that accelerated rate.

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MR. PERSILY discussed slide 16, "Alaska LNG risks are substantial," which read:

Producers willing to sell gas at inlet to the gas plan, but what about the sales, market and price risks?

Who takes those risks? And the construction risks?

And what about the risk and price for new supplies after Prudhoe Bay and Point Thomson start decline before end of the long-term loan or supply contract

MR. PERSILY pointed out that these projects would start to decline before a 30-year contract could be supplied. He asked who would take that risk for looking for new gas, what would be the price of the new gas, and what if the price of the new gas cost more than the original deal would pay. He offered his support of the approach by AGDC (Alaska Gasline Development Corporation) to finish its work on the environmental impact statement with the Federal Energy Regulatory Commission (FERC). He pointed out that the oil companies had also put a lot of work into that statement. He noted that the FERC authorization was generally good for five years and could be renewed if the information was brought up to date. He added that one test for that authorization would be a list of conditions and mitigating factors for the project, as these were the things necessary to make the project work.

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REPRESENTATIVE RAUSCHER pointed to the risks for new supplies mentioned on slide 16 and asked if there was "anything in the wind."

MR. PERSILY stated that the expectation was that there was a "lot of gas up there, but no one's been exploring for it." He expressed his concern for fixed price contracts for the time frame of a project involving gas that had not yet been found and had not yet been costed for production. He reported that if there were a pipeline to get North Slope gas to market, the companies could book those known reserves on their balance sheets. He added that the pipeline had not yet passed an economic test.

[11:11:32 AM](#)

MR. PERSILY shared slide 17, "Alaskans cannot will it to success," which read:

No one outside Alaska cares that we want the project

The Alaska LNG project will not solve our political fights over Permanent Fund dividend, budget or taxes

Payments in lieu of municipal taxes far from settled

Mega-projects avoid risk – and Alaska excels at risk

CHAIR HOPKINS asked which group was working on this.

MR. PERSILY explained that it was a municipal advisory group appointed by the governor to work on the Alaska LNG project, and it included the North Slope Borough, the Fairbanks-North Star Borough, the Denali Borough, the Matanuska-Susitna Borough, and the Municipality of Anchorage. He reported that a 20-mil property tax for the life of the project would add about 10 percent to the final sale price, and, in the current market, that was not affordable. He suggested to negotiate a shared certainty for each group so that a price could be quoted to a buyer. He offered an example of revenue based on pipeline mileage in each borough.

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REPRESENTATIVE PRUITT asked how to ensure certainty as it could not be ensured through statute because of potential changes.

MR. PERSILY offered his belief that constitutional amendments were not recommended. He pointed out that contract law with a damages clause would work.

REPRESENTATIVE PRUITT asked if that was the reason for the importance of state involvement as a signatory to the contract. He noted that the state would then be accountable and responsible for some of the damages.

MR. PERSILY replied that this was one of the supporting arguments for the original Alaska Gasline Project with the state as a 25 percent equity partner. He pointed out that the state and the producers were then aligned for the lowest production cost, the highest price, and the most stability.

REPRESENTATIVE PRUITT asked if the contract could be written with the pipeline owner instead of the end user. He asked how the state could have the greatest opportunity to ensure it would have buy-in.

MR. PERSILY replied that this would be subject to negotiation, as the contract would force the state to behave responsibly. He offered his belief that Alaska was viewed as politically "squirrely." He shared that the IRS had offered its opinion that the percentage of ownership by the state would be exempt from federal corporate income taxes, even as the oil companies would have to pay income tax. He stated that he was "a little suspect on how the state represented the ownership structure."

REPRESENTATIVE PRUITT opined that this had been a key discussion point during the previous administration and asked if this discussion with the IRS had indicated that the State of Alaska would only have a certain share of ownership.

MR. PERSILY, in response, offered his belief that the letter was sent while the state was still a minority partner, and that 100 percent ownership would have changed the IRS determination. He questioned the amount of gas that would have stayed in the state and asked whether this would have been gas for Alaskans or a profit-making venture.

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MR. PERSILY paraphrased slide 18 "Alaska's options are not very good," which read:

Alaska Stand-Alone Pipeline less economic than LNG

Building LNG plant on the North Slope would not save all that much money, air quality permits would be a challenge, it's miles out to deep water for LNG berths, and no guarantee of year-round ice-free operations

Best option: Finish the EIS and work with producers

MR. PERSILY expressed his agreement that the Alaska Stand-Alone Pipeline would require billions of dollars of state subsidies to primarily serve Fairbanks. He discussed options to a pipeline, and pointed out that it would be more expensive to build the project a factory on the North Slope than anywhere else, as there would still be the need for a gas treatment plant to remove the CO₂, increased construction costs, and need for a man-made island to get the LNG out to deep water.

[11:24:08 AM](#)

MR. PERSILY discussed slide 19, "Alaska's finances don't help," which read:

Government role in LNG mega-project would be first in the world outside of national oil companies

Where would Alaska come up with its equity dollars?

Will oil and gas taxes change during the mortgage?

Would you loan billions of dollars on Alaska project?

MR. PERSILY declared that it was be necessary for the state to resolve its own financial issues before it could become a partner in any project of this size.

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CHAIR HOPKINS directed attention to the world market and asked about the "wild cards in the international market" that might impact the potential for an LNG line.

MR. PERSILY stated his belief that China would be a wild card, noting that its economy was showing some signs of weakening, and that India should also be watched. He looked at the potential impact of a Russian pipeline and its government intervention as "Putin sees energy as a means of control and political gains." He questioned how much China and India would grow and where would they get cheaper gas. He added Mozambique as a wild card, noting its three gas projects could offer three times the gas capacity of Alaska with proximity to South Asia, China, and India. He reported that natural gas was also discussed as a "bridge fuel" for renewables.

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REPRESENTATIVE RAUSCHER asked if Mr. Persily was against LNG for Alaska or just against a pipeline. He asked if LNG could "come down the side of Alaska instead of coming down the middle of Alaska."

MR. PERSILY, in response to Representative Rauscher, offered his belief that building a liquefaction plant on the North Slope that would require a huge fleet of ice breakers was not economically and environmentally a good idea.

REPRESENTATIVE RAUSCHER referenced the possibility of short pipelines off the coast to "work around the major costs of the entire pipeline that runs down the middle of the state."

MR. PERSILY pointed out that this would still be a very expensive pipeline and opined that it would be even more expensive to build a plant on the west coast than in Southcentral which had year-round access. He pointed out that the gas was still being used to produce more oil and was not being wasted.

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CHAIR HOPKINS asked about the Stranded Gas Development Act.

MR. PERSILY offered his belief that this had expired. He explained that this act gave the state the ability, if the gas was declared stranded, to negotiate different fiscal terms. He pointed out that former Governor Murkowski had brought this contract to the legislature for consent, but the legislature never voted on it. He stated that "there were problems with that contract."

11:31:06 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:31 a.m.