

**ALASKA STATE LEGISLATURE  
HOUSE RESOURCES STANDING COMMITTEE**

March 5, 2025

1:05 p.m.

**MEMBERS PRESENT**

Representative Robyn Niayuq Burke, Co-Chair  
Representative Maxine Dibert, Co-Chair  
Representative Carolyn Hall  
Representative Donna Mears  
Representative Zack Fields  
Representative Dan Saddler  
Representative George Rauscher  
Representative Julie Coulombe  
Representative Bill Elam

**MEMBERS ABSENT**

All members present

**COMMITTEE CALENDAR**

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

NICHOLAS FULFORD, Senior Director  
Liquid Natural Gas and Energy Transition  
GaffneyCline Energy Advisory  
Houston, Texas

**POSITION STATEMENT:** Presented an introduction to the global Liquefied Natural Gas market and implications for Alaska.

**ACTION NARRATIVE**

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**CO-CHAIR ROBYN NIAYUQ BURKE** called the House Resources Standing Committee meeting to order at 1:05 p.m. Representatives Fields, Rauscher, Mears, Elam, Hall, and Dibert were present at the call

to order. Representatives Coulombe and Saddler arrived as the meeting was in progress.

**PRESENTATION(S): An Introduction to the Global Liquefied Natural Gas Market and Implications for Alaska**

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CO-CHAIR BURKE announced that the only order of business would be a presentation regarding the global Liquefied Natural Gas market (LNG) and implications for Alaska.

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NICHOLAS FULFORD, Senior Director, Liquid Natural Gas and Energy Transition, GaffneyCline Energy Advisory, presented a PowerPoint titled "An Introduction to the Global Liquefied Natural Gas Market and Implications for Alaska" [hard copy included in the committee packet]. He discussed the long-term nature of liquefied natural gas (LNG) projects. He distinguished LNG from liquefied petroleum gas (LPG). Mr. Fulford explained the safety measures taken when storing and transporting LNG. He said that currently about one-quarter of the world's primary energy requirements come from gas and about one-eighth of those come from LNG.

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MR. FULFORD, in response to a series of committee questions, said that most of the energy forecasts for the next few decades include expectations that renewable energy sources will replace oil and coal, while gas would track with the global energy demand. Because the global energy demand is expected to double by 2050, he said renewables would address that growth rather than the existing or projected gas market.

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MR. FULFORD described the processes making up the LNG supply chain, including gas treatment, pipelines, liquefaction, storage, transportation, regasification, and delivery to customers. He provided a brief overview of the growth in LNG trade beginning with Alaska in 1969, until the present day. He predicted that Qatar and the United States will be the primary sources in the future supply of LNG. Mr. Fulford explained that the scale of the LNG industry has increased dramatically over the last 50 years. He provided a map of current LNG global

trade routes, highlighting Alaska's strategic location among these routes.

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MR. FULFORD described the market turbulence of the global gas industry over the last five years, while also emphasizing the resiliency of the LNG industry. He said that markets have been stabilizing since the particularly chaotic period between 2022 and 2023. He then discussed LNG demand outlook between now and 2050, emphasizing the uncertainty caused by different policy outlooks over the same period.

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MR. FULFORD, in response to a series of committee questions, explained that the intermittency of using renewable resources for electricity sometimes requires the use of gas-fired power to fill the gaps in demand. He said that the main impact of renewables will be through the significant electrification of emerging economies and that LNG will fill gaps in the economies that cannot electrify as quickly. He also emphasized both the volatility in fuel prices and in energy from renewable sources. He explained that that UK is down to four percent gas generation on average, but when wind and sun conditions are poor, gas generation increases to 70 percent.

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MR. FULFORD described the supply outlook for LNG. He explained that although the U.S. LNG industry only began in 2012, the U.S. is currently the largest LNG exporter in the world. He said that U.S. Gulf Coast LNG has become the price setter of the market in recent years, and he believes it will likely remain that way. In response to a question from Representative Fields, Mr. Fulford said that Alaska LNG would be looking to the Pacific for its main source of revenue. Due to its geographic location, shipping LNG from Alaska to Europe would be cost prohibitive.

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MR. FULFORD provided predictions regarding the demand and supply of LNG between now and 2050. He projected an oversupply of LNG until 2030, with the potential for new demand by 2035. He explained that there have been efforts to mitigate the intensity of carbon dioxide in LNG because low carbon LNG is likely to become a major driver for the future of LNG. Mr. Fulford said

that lenders are also pressuring LNG developers, many of whom have sustainability constraints for the projects they can lend to. He also explained that the definitions of "low carbon" or "net zero" LNG are up to interpretation. He discussed carbon capture and storage (CCS) and how the process could be used to expand the population of lenders willing to lend to LNG projects. Mr. Fulford explained where carbon emissions come from in the LNG value chain and how they might be controlled.

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MR. FULFORD emphasized that choosing an appropriate structure is one of the most critical features of getting a sustainable LNG project underway. He explained the three different structures for LNG projects: the fully integrated model, the merchant model, and the tolling model. Mr. Fulford then discussed how the LNG contracting model has evolved, comparing a pre-2000 model to the more recent portfolio-based model, where LNG trading contributes more to the LNG profit stream. He then discussed the evolution of LNG cost estimates.

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MR. FULFORD presented a study of 12 LNG projects between 2007 and 2020. He said that in general, costs for these projects have been higher than budgeted for, yet their actual capacity is typically higher than the performance guarantee. He then provided a similar comparison of schedules for these 12 LNG projects. He said that many of these projects have gone over schedule, while also highlighting some projects that achieved accelerated construction times.

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MR. FULFORD, in response to a series of committee questions, explained how the tolling model provides a set rate for LNG projects whose contracts are typically 15 to 20 years or longer. He also described the factors that increase the risk of cost overruns for LNG projects. Mr. Fulford, in response to a question regarding these overruns, emphasized that the U.S. Gulf Coast experience has been quite favorable from the point of view of budgeting and delivering projects on time. He discussed options for moving price risk to other steps in the LNG project system to avoid cost overruns. He discussed the expected returns on various types of LNG projects.

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MR. FULFORD, in response to a series of committee questions, said that GaffneyCline is currently under contract with the State of Alaska Legislature. He also explained that of the three LNG models, the lowest risk model would be the one where all parties involved have the greatest degree of alignment in terms of their commercial goals and investments. He said, therefore, that all three models could work for an LNG project in Alaska.

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MR. FULFORD provided multiple scenarios to illustrate some of the differences between the Alaska LNG project and other similar projects. He explained that there are three sources of revenue from LNG: upstream gas production, investment in infrastructure, and LNG trading. He then provided four scenarios as examples of the delivered cost of gas from LNG projects. He used these scenarios to demonstrate the U.S. Gulf Coast LNG project's vulnerability to Henry Hub increases and the Alaska LNG project's vulnerability to Capital inflation. He emphasized that Alaska LNG is very expensive, but that does not necessarily have to translate into the cost of gas delivered.

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MR. FULFORD, in response to a series of committee questions, further discussed the three sources of revenue from LNG that he provided earlier. He said it would be relatively straightforward to predict the cost of importing gas over the next few years. He explained that GaffneyCline offers financial modeling and general analysis over oil and gas questions. He said that the way the State of Alaska might choose to invest in an LNG project would be subject to evaluations, but that the state would effectively come up with 30 percent of the total investment, while the other 70 percent could be project-financed. Mr. Fulford then offered options for how the State could possibly afford that 30 percent cost.

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MR. FULFORD discussed the benefits of an Alaska LNG project, including the oil-production implications from gas and the federal loan guarantee. He also elaborated on the value enhancement features of low-carbon LNG options. He then discussed the features of enabling LNG legislation: a fiscal stability clause, tailor-made legislation based on the project's

scale, and host country provision. He highlighted some LNG projects that have suffered from different setbacks and described the risk and outcome for each of these projects.

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MR. FULFORD, in response to a series of committee questions, said that investors always look for stability and continuity and that Alaska's decades of oil and gas investments have ebbed and flowed. He said that investors are typically put off more by the sequestration of assets than the ebbs and flows Alaska has seen in its gas projects. Mr. Fulford said that the State would probably face one of three outcomes with an LNG project: long-term imports of LNG; the proposal to build phase 1 of the LNG project with the pipeline; or the LNG project itself. He emphasized that the cost of gas in south central Alaska would decrease with an Alaska LNG project. Mr. Fulford

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#### **ADJOURNMENT**

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 2:55 p.m.