

**Speech for
Stable LNG Pricing
A PARADIGM SHIFT FOR BUYERS & SELLERS**
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Nee How!

Good morning!

Distinguished government officials, highly-esteemed colleagues, ladies and gentlemen, dear friends, It is an honor for me to be here in Ningbo with you today representing Alaska Gasline Development Corporation to discuss commercial matters with respect to LNG supplied by the USA to China. Please let me take just a moment to thank the many experts from governments of both China and USA for their diplomacy and cooperation in arranging this highly professional world-class event. And furthermore thank you for including a panel on LNG commercial topics.

The topic I will speak about today is Stable LNG Pricing, a Paradigm Shift for Buyers and Sellers. Our idea is that global economies need energy to grow and they need energy with a stable and predictable price to grow in a smooth continuous pattern.

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Historically our industry has seen LNG prices equal to a fixed percentage of crude oil price. Using words that are common in the LNG trade, “LNG prices were indexed to crude oil at a fixed slope”.

In this historical commercial model, when oil prices cycle from low to high and back to low, the LNG price also cycles up and down in price. Of course, the result is that the price of natural gas delivered from an LNG import terminal also cycles up and down with the LNG price.

Unfortunately, the primary gas consumers of LNG do not make more money when crude oil prices are high to offset the higher cost of gas. This is equal for electric power consumers that use electricity generated from natural gas. As a result, gas and power consumers of all types suffer when LNG prices are high, especially when prices go up erratically as the volatility in these charts show over the past 16 years.

Our idea is that LNG can be priced with a long-term stable predictable pre-set price that is guaranteed not to increase suddenly despite wild swings in global crude oil price or even in global natural gas prices. Please let me explain.

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LNG production is capital intensive and the facilities are often adjacent to upstream exploration and production (E&P) investments. But LNG production has a different risk profile than E&P investments because there is no geologic nor reservoir-performance risk linked directly to LNG infrastructure operation.

The equipment and infrastructure required to deliver gas and make LNG are midstream investments that justify economic returns similar to utility investments if they will be used consistently at a steady full rate with sufficient natural gas supply, LNG infrastructure has been shown to operate for over 40 years in several export facilities globally.

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The key component for a stable LNG price is a large and reliable natural gas supply. And there must be an ability and willingness on part of the resource owner to sell the gas at a fixed or pre-set price. This can eliminate the volatility of crude oil prices in LNG prices. The key to the solution is linking large and reliable natural gas supply to customers through long term agreements that give customers a predictable pre-set LNG price. Furthermore, with recent developments in past few years of engines for ships that run very efficiently on natural gas, the LNG price can ensure the cost of fuel is also predictable and pre-set for ships that deliver LNG.

A predictable pre-set energy cost will help industrial business planners deliver predictable economic growth. And the people of the general population can also better plan their personal budgets and enjoy better quality of life without fear of economic hardship caused by volatile energy costs.

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Natural gas is the cleanest burning fossil fuel. And more natural gas use in China is helping improve life for the people with cleaner air quality. We know there is uncertainty about the quantitative future natural gas demand for China, but experts agree that natural gas demand is growing and part of the natural gas supply will be from LNG. And there will be a need by the middle of next decade for more dependable LNG supply. Our idea is that part of the dependable LNG supply can be at predictable pre-set prices that avoid the historical volatility of crude oil prices. Crude oil prices are volatile partially due to the unique geologic and reservoir risks of producing crude oil for E&P economic returns, but in some cases the gas price does not need the same volatility. Not all LNG can be contracted at a predictable pre-set price, but some of the global LNG supply can. And this predictable pre-set price for clean energy can be part of the energy supply solution for China.

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Energy is not the only component of economic growth, but energy is a primary driver of economic growth. The shift to predictable pre-set LNG prices can help underpin economic growth and will increase use of natural gas as a clean fuel wherever the stable price is available. Furthermore, natural gas storage is quite important for fluctuations in gas use both from day to night and during extreme cold weather. Seasonal and multi-month natural gas storage is accomplished efficiently with gas in vapor form in geologic underground storage. Another important component of natural gas storage for short term multi-day natural gas storage is efficiently accomplished with natural gas in LNG form. The combination of vapor-form storage and LNG-form storage of natural gas provide the flexibility for backup power to supplement renewable solar and wind energy when renewable power is not available either at night or when the wind is not blowing. And imported LNG at a stable predictable price can be part of the supply for natural gas storage in LNG-form. China has implemented increased LNG-form storage in many import terminals for these reasons. For example, very recently there have been announcement about adding four huge LNG tanks of 160,000 cubic meters each at Tangshen to supply Beijing and Hubei provinces. This will double LNG storage capacity at the import facility.

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In closing, our conclusions are that evolutions and developments in the LNG industry have brought us to a time for a huge change in pricing of some LNG. This is what I like to call a paradigm shift. It represents a change in the way we think and see some parts of energy supply. As more and more LNG is sold with a stable predictable pre-set price, we can expect stable economic growth with clean skies and a green environment. These will help deliver benefits to the people in both countries.

Thank you.