Looking for a Global Natural Gas Benchmark?
Why "Dated LNG" is the Answer.

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Introduction

Traditionally natural gas has largely traded as a pipeline commodity. The pricing benchmarks which evolved under this model reflect regional supply and demand conditions at a variety of hubs around the world. In recent years the lines delineating these regional pipeline markets have been blurred by increased LNG cargo trade. Many natural gas market participants are now searching for a new global benchmark to improve trading liquidity and provide tools to better manage pricing risk.

There is no need to "reinvent the wheel" when it comes to establishing the framework to launch a vibrant global LNG marketplace. The oil industry successfully overcame similar challenges some thirty years ago. Back then, crude production from new fields and increased spot cargo trading offered market participants an alternative to the legacy long-term formula-priced contract, which is still prevalent in LNG commerce today. Oil producers, traders and refiners agreed on standardized contract terms and conditions for physical forward cargo, futures, and short-dated trade in Brent crude in order to streamline spot trading, reduce transaction costs and improve price discovery.

Today, the "Dated Brent" quote is a daily assessment published by price reporting agencies (PRAs) to reflect the value of a barrel of oil produced from the Brent Complex[1] for prompt cargo-size loading on a vessel within a specific date range. This quote has become the pricing benchmark for approximately 70% of global oil production. The application of the price discovery methodology used in the Brent market to create a globally relevant, tradable and transparent "Dated LNG" benchmark is referred to as the *#Brentrification* of LNG.

Why "Dated LNG"?

For the global LNG market to reach its full potential, contract standardization and price transparency from the end of the forward futures curve through vessel loading is key. LNG contracts with backward-looking formulas tied to an arbitrary percentage of the price of a barrel of oil or a gallon of refined product are inefficient, difficult to hedge and no longer make sense from a Btu or any other relative value measure. The global LNG marketplace is ready for stand-alone price discovery, and establishing the "Dated LNG" benchmark is a critical first step.

Additionally, for a commodity benchmark such as LNG to have global utility it must be origin, not destination-based. Natural gas pipeline hub and offshore LNG benchmark price

[1] Brent/Forties/Oseberg/Ekofisk/Troll

assessments for Henry Hub, TTF, NBP and JKM though useful, reflect regional conditions. They are not structured to satisfy the diverse needs of commercials across six continents like the proposed "Dated LNG" benchmark.

To overcome this regional bias the global benchmark price must reflect value free-on-board (fob) the vessel at an industry approved load port. For the "Dated LNG" benchmark, this means variables relating to transporting natural gas from producing wells to the cargo loading terminal, such as securing pipeline transport and liquefaction space, have been taken out of the equation. Consequently, buyers need only manage transportation basis risk from load port to final destination, and this exposure to benchmark basis risk can be mitigated using Freight Forward Agreements (FFAs) to hedge against price volatility in the ocean freight market.

The Importance of Contract Standardization

A growing percentage of global LNG cargo trade today is occurring outside of long-term bilaterally-negotiated agreements. This trend towards more short-term or spot market trades has attracted new players and enabled many traditional natural gas market participants to rethink their existing business models. However, this migration has not been as smooth as it would have been if an industrywide agreement on a set of standard contract terms had been firmly in place.

To overcome this shortfall, GPD Systems[2] has proposed a set of standardized physical forward, futures and short-dated LNG contracts[3]. Combined, these contracts provide the "runway" for PRAs to generate the daily "Dated LNG" benchmark price. To ensure the three contracts are seamlessly linked, the cash-settlement Brent futures model has been enhanced to guarantee LNG physical delivery to commercials with cargo-size post-expiry long or short positions[4]. This important provision guarantees price convergence between the physical forward "Agreement for the Sale of LNG Under One-Full Month Terms" and futures markets, while providing commercials with a reliable source or outlet for the underlying commodity.

The Future of Global LNG Trade

For decades daily trading volumes in the standardized Brent market contracts have significantly exceeded total global crude oil production. The LNG market can grow by similar multiples if its market participants agree to a set of standard contract terms and embrace the "Dated LNG" benchmark.

By doing so, the resulting transparent prompt and forward LNG pricing will produce numerous benefits for the natural gas industry. The global value chain and capital investment decision making process will become more efficient. Investors and speculators will have more opportunities to leverage their market intelligence as trading volume grows. Producers, consumers and transporters can enter cleaner hedges to better manage market and project risk. Secondary markets will be spawned as loading stems and load ports are

[2] http://gpdsystemsllc.com/

[3] http://gpdsystemsllc.com/lng-forwards.html | http://gpdsystemsllc.com/lng-futures.html | http://gpdsystemsllc.com/short-term-swaps.html

[4] US Patent No. 7676406

swapped between companies to smooth operations and reduce transportation costs. Regional natural gas hub and destination-based LNG trading volume will expand as those locations price at differentials to the highly-liquid global benchmark. Storage facilities will be built to capture seasonal price swings. Electric utilities will be able to hedge their natural gas costs outside of 10, 20, 30-year long-term supply agreements. The list goes on and on.

Next Steps

Launching buyer/seller neutral industry-standard terms for LNG physical forward cargo, physical delivery futures and short-dated swap contracts will expand trading liquidity and price transparency worldwide. It will also pave the way for the proposed "Dated LNG" assessment to emerge as the global natural gas benchmark.

GPD Systems would be proud to be part of an industry working group or task force convened for the purpose of finalizing the standard contract terms for global LNG trade. Topics to discuss will include; the selection of an approved basket of load ports physical forward sellers and futures shorts may nominate for fob vessel delivery, the determination of the standard cargo-size delivery volume, and which futures exchanges will be approached to list the LNG futures contract.

Business as usual should no longer be an option. The stakes are high. If the natural gas industry makes contract standardization and price transparency its mission, LNG trade can reach its full potential, cementing its role as the cleaner bridge to a renewable energy future, while emerging as the commodity growth story of the 21st century. The time to act is now!