LNG is a Battlefield

The Coming War for Global Market Share

- **Natural gas is now the hydrocarbon of choice for power generation, heating and many other uses across much of the global energy market.**
- **Liquefied natural gas (LNG) brings natural gas to key markets with insufficient native gas supply; still, LNG must not be cost-prohibitive.**
- **While LNG demand is expected to rise over the long term, a lull in demand growth--coupled with new liquefaction capacity-- has bloated LNG supplies and slashed prices in the past year.**
- **Market paradigms such as oil-indexed LNG prices and point-to-point LNG deliveries are being challenged by gas indexing and "destination flexibility"**
- **Fueled by the growth of shale gas, the U.S. is poised to become a leading LNG exporter, with Asia and Europe as key markets—Latin America too - but faces competition from the Mid-East and Australia.**
- **The crash in oil prices relative to natural gas since the summer of 2014 has upset the advantage of gas indexed pricing but the U.S. should remain a cost-competitive supplier to international markets.**
- **Returns on investment in U.S. LNG export infrastructure as well as the extent of future expansion depend on price competitiveness in international markets.**

Over the past 50 years, the market for liquefied natural gas (LNG) has developed into a major international trade. In 2014, nearly 240 million metric tons (MTPA) of LNG, the equivalent of more than 30 billion cubic feet/day (Bcf/d) of natural gas, was shipped from gas production and liquefaction centers like Qatar, Malaysia and Australia to importing nations, whose ranks are led by Japan, South Korea, China and India. The U.S. until a few years ago had been expected to join the list of leading LNG importers, but the shale revolution changed all that. Now, instead of receiving increasing amounts of LNG from overseas, the U.S. over the next three to five years will become a *Top Three* exporter of LNG, and may emerge as the world's leading LNG exporter by the mid-2020's. The 12 liquefaction "trains" now under construction at five sites in the Lower 48 states (Sabine Pass, Cameron, Freeport, Cove Point and Corpus Christi) together will have the capacity to export up to 54 MTPA, which would require up to 7 Bcf/d of U.S. gas—about 10% of current production levels. Many more U.S. liquefaction/export projects have been proposed,

but the degree to which U.S.-sourced LNG can penetrate international markets remains to be seen.

This RBN Drill-Down Report describes the LNG trade, beginning with a brief historical summary, and followed by sections on the recent and near-term markets; major LNG importing nations in Asia and Europe; and efforts to change the traditional commercial structures of LNG contracts, especially those provisions dealing with pricing. That sets the stage for a discussion on the key factors that will determine the need for additional liquefaction/export projects, and conclusions regarding how LNG market changes may benefit U.S. gas producers and LNG exporters.

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