



U.S. Gulf Coast LNG to Asia: Low-Cost Diversification of Supply



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The Freeport LNG Perspective



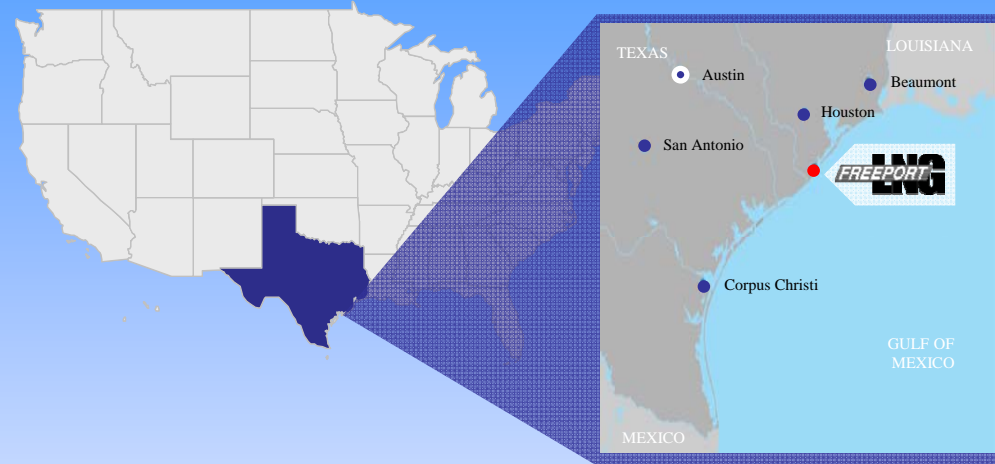
- Founded in 2002
- 2 Bcf/d LNG regasification facility located on Quintana Island near Freeport, Texas
- Three long-term, take-or-pay tolling TUAs with COP, Dow and Mitsubishi
- Over \$1.6 billion of existing assets
- Very strong financially, with investment-grade debt rating of BBB-
- 125+ employees





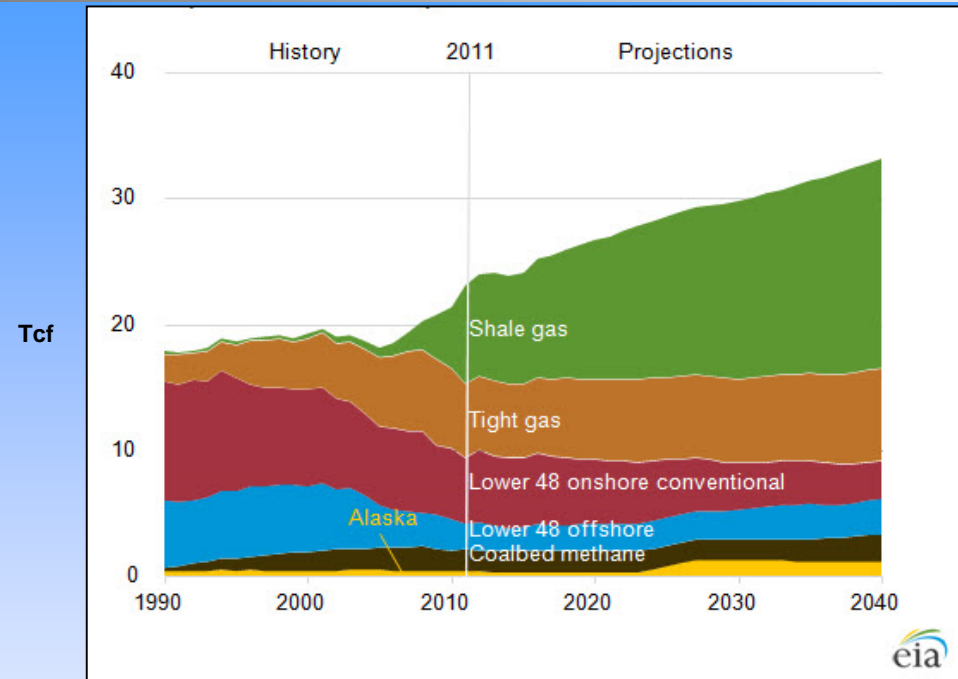
Freeport LNG's Liquefaction Project

- Freeport LNG is converting its existing import terminal into a bidirectional liquefaction and export facility.
- Three liquefaction trains (APCI) and associated natural gas pretreatment of up to 5 million tons per annum each.
- The capacity of three trains have been sold under long-term liquefaction tolling agreements.
 - Train 1: Osaka Gas, Japan's second largest gas utility, and Chubu Electric, Japan's third largest electric utility
 - Train 2: BP, fourth largest oil company in the world with over 30 years of LNG experience
 - Train 3: Toshiba Corporation and SK E&S LNG.
- EPC costs expected to exceed \$2.5 billion per train.
- Production start-up (commissioning): 2017





U.S. Natural Gas Production 2007-2040



Source:
EIA and Bureau of Labor Statistics

- Between 2007 and 2011, shale gas production more than quadrupled.
- Shale gas share of total gas production jumped from 8.1 % in 2007 to 29.9 % in 2011.
- Gas production had been increasing even without drilling in prolific dry gas areas.
- When gas prices rise to around \$5.00/MMBtu, unlimited amount of dry gas will be produced in the U.S.
- This will cap gas prices between \$5.00 and \$6.00 in the foreseeable future.



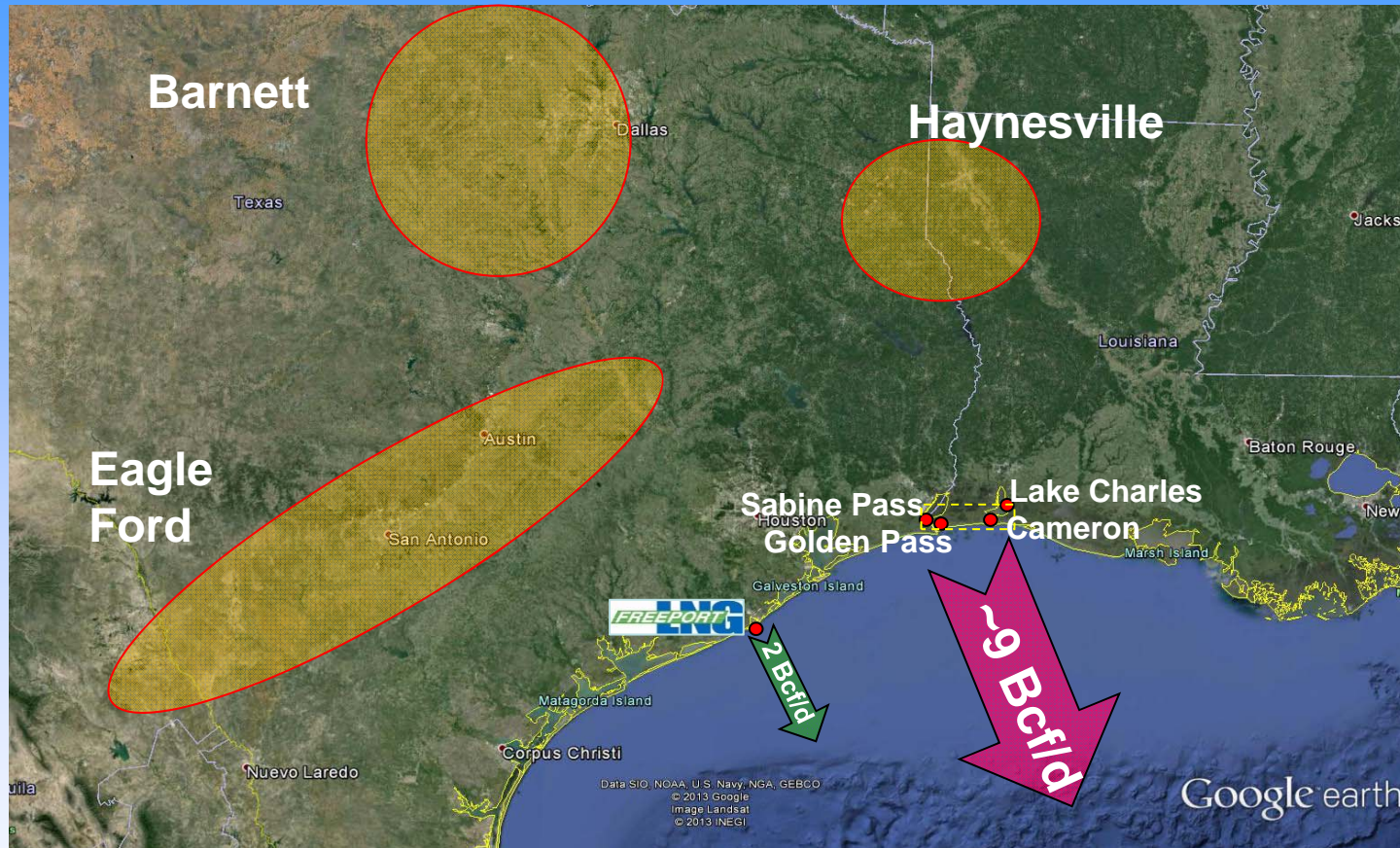


U.S. Gulf Coast LNG to Asia

- **Lower Cost Supply**
 - At current U.S. gas prices around \$3.50, LNG delivered into Asia from the U.S. Gulf Coast would be very competitive with current oil-linked LNG prices.
 - Even if current gas prices were to increase significantly, the landed cost would still compare very favorably to DES prices in Japan.
 - Increases in oil prices would make U.S. Gulf Coast prices even more competitive.
- **Supply Diversification**
 - Development of a new supply source—the mainland U.S.
 - Introduction of a new price index into Asia (linked to U.S. gas prices indices)
- **Innovative Project Structures**
 - Projects allow LNG customers direct access to natural gas reserves.
 - No dependence on upstream development, reducing project risks and potential cost overruns.
 - Flexible feed gas pricing mechanisms and destination provisions.



The Freeport Advantage



- The existing regas assets reduce cost and risk.
- Shortest marine approach of any U.S. LNG facility.
- Access to cheap Eagle Ford gas.
- Located in Texas, the largest natural gas-producing state in the U.S.





Thank You



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