Alaska LNG Does the market need us?

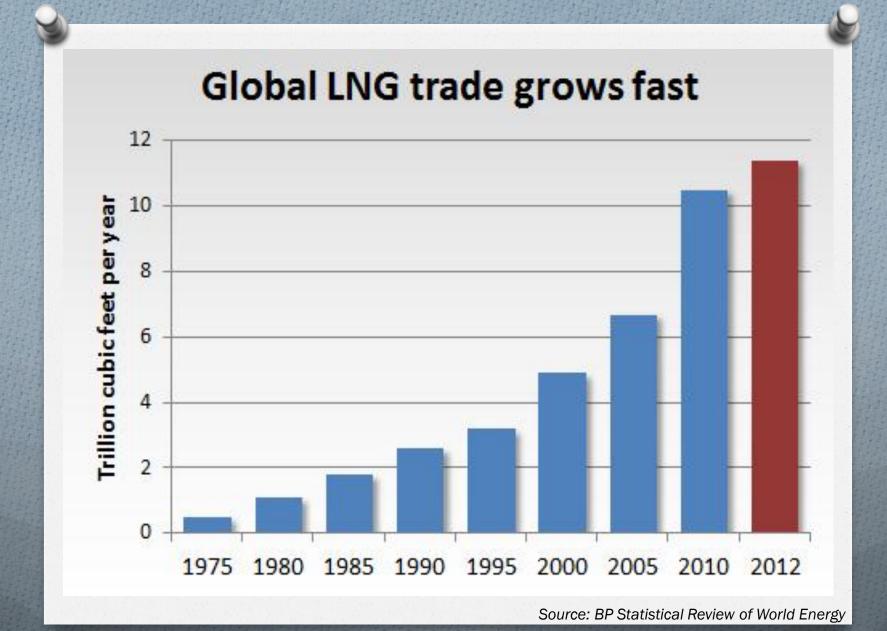
Larry Persily, Federal Coordinator for Alaska Gas Line Projects House Finance Committee – March 17, 2014

ALASKA NATURAL GAS TRANSPORTATION PROJECTS OFFICE OF THE FEDERAL COORDINATOR

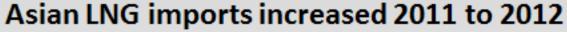


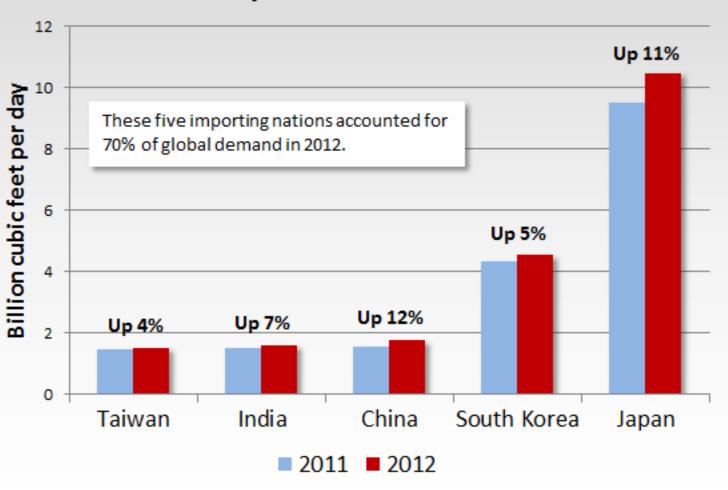
The world changed, not us

- Global LNG trade has quadrupled since 1995
- Asian LNG demand alone could double by 2025
- China demand growing double-digit annual rate
- Europe looking for alternatives to Russian gas
- Worldwide concerns over coal, nuclear plants
- Alaska LNG could be the victor of circumstances



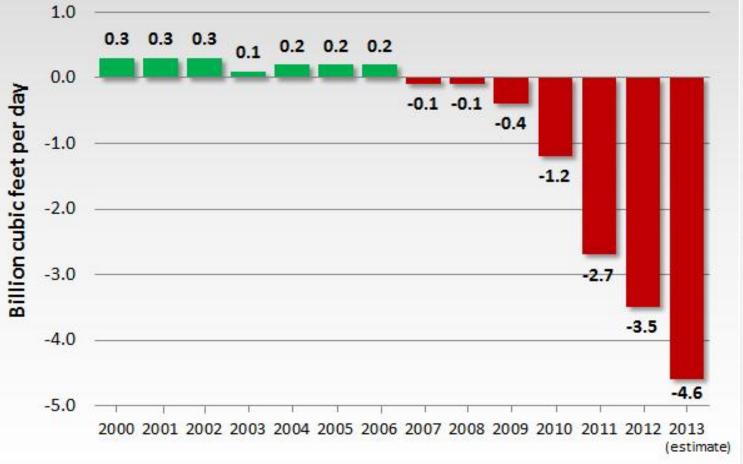






Source: International Group of Liquefied Natural Gas Importers

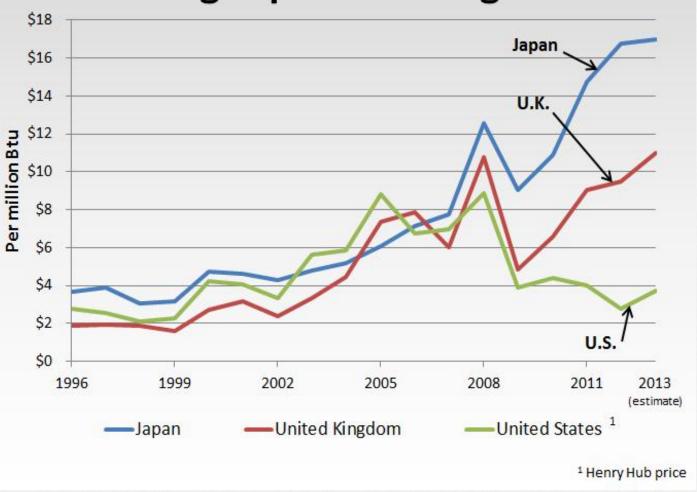




Sources: BP, National Bureau of Statistics China, China SignPost



Global gas prices diverge



Source: BP Statistical Review of World Energy



Enough business to share

- Worldwide natural gas demand is forecast to grow faster than any other energy source
- In addition to 12 LNG export projects under construction, more will be needed by 2025
- As many as 10 or 12 more in next decade
- Several hundred billion dollars in investment
- Cost competitiveness will decide the winners



- Japan paid \$70-plus billion for LNG in 2013
- Energy a big reason for \$112 billion trade gap
- Third year in a row of trade deficit in Japan after more than 30 years of a trade surplus
- Japan leading the charge for new suppliers, more competition and lower LNG pricing regime
- But prices must be enough to justify investment



No project has it easy

- BG Group says 525-mile natural gas pipeline to Prince Rupert, BC, could cost up to \$10 billion
- LNG tax debate under way in British Columbia
- Dredging, harbor, berthing costs estimated at \$1.5 billion for Australia's Wheatstone LNG
- Russian politics out ahead of project economics
- Buyers hold back, wait to see LNG pricing trend



Canada eager, but delayed

- First Nations want to consult on air quality, pipeline routing, economic and jobs issues
- High development costs at remote gas fields
- Pipelines 300 to 525 miles; 2 mountain ranges
- Access to Prince Rupert may have to go offshore
- Provincial tax and regulatory regimes delayed
- No project has all its permits, customers and FID



Lower 48 faces hurdles

- Tough politics between producers & customers
- Oversupply holds down prices for gas buyers
- Producers want freedom to seek best market
- Energy Department export approvals are slow
- Unknown Panama Canal tolls worry LNG buyers
- Local opposition to Maryland, Oregon plants, and against fracking as source of gas production



Australia and Russia, too

- Cost overruns in Australia scare investors
- Contentious debate is growing that exports are driving up prices for Australian customers
- Environmental, economic issues stacking up
- Russian gas comes with politics attached
- Distance from gas, distance from market a problem for at least two Russian LNG projects



Alaska has its advantages

- Proven gas reserves; no exploration risk
- Low-cost production vs. greenfield projects
- Almost 40 years experience at Prudhoe Bay
- LNG plant much more efficient in cold climate
- Shorter LNG carrier voyages to Asian markets
- North Slope gas high Btu value fits the market



Alaska has changed, too

- Prudhoe Bay growing older, economics look better as an oil and gas play rather than oil only
- Point Thomson under development and would supply 25 percent of the gas for the LNG project
- Major North Slope producers willing to spend significant money to advance the LNG project
- Alaskans appear willing to consider investing significant state money into the huge project



Patience is a virtue

- Patience is a must for state LNG investment
- Long wait for the first check but long payback
- Norway invested billions in oil and gas and then waited years for any return; it took a decade before real investment payback started to roll in
- If it wants to act like an oil and gas business,
 Alaska must think like one and think long term



What's changed since 2002

- Department of Revenue 'Risks and Rewards' report in 2002 looked at a pipeline, not LNG
- Different markets, sales, risks and regulations
- State is in a better cash position today
 (\$17 billion in savings) than 2002 (\$2 billion)
- State equity investment in 2002 might have needed assistance from the Permanent Fund
- 100% state ownership was on the table in 2002



Some things haven't changed

- DOR 2002 report recommended the state match pipeline capacity with its share of the gas
- Report said conflicts as an owner and regulator are real, but state-owned corporation could provide a partial barrier to minimize the conflicts
- Minority ownership doesn't give state control
- Report warned: Keep politics out of the business



Big step for Alaska

- Role of risk-taking owner much different than watching as a tax-collecting observer
- Provides state a voice in project decisions
- Provides return to state on its investment
- Capital draw concurrent with budget deficits
- State shares risk of overruns, delays, prices; shares in rewards of gas and public revenue



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