

03/17/14
OVERVIEW
GAS LINE
PROJECTS

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PROJECTS</SUBJECT><COMM>HF IN28</COMM></TARGET>

Alaska LNG

Does the market need us?

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

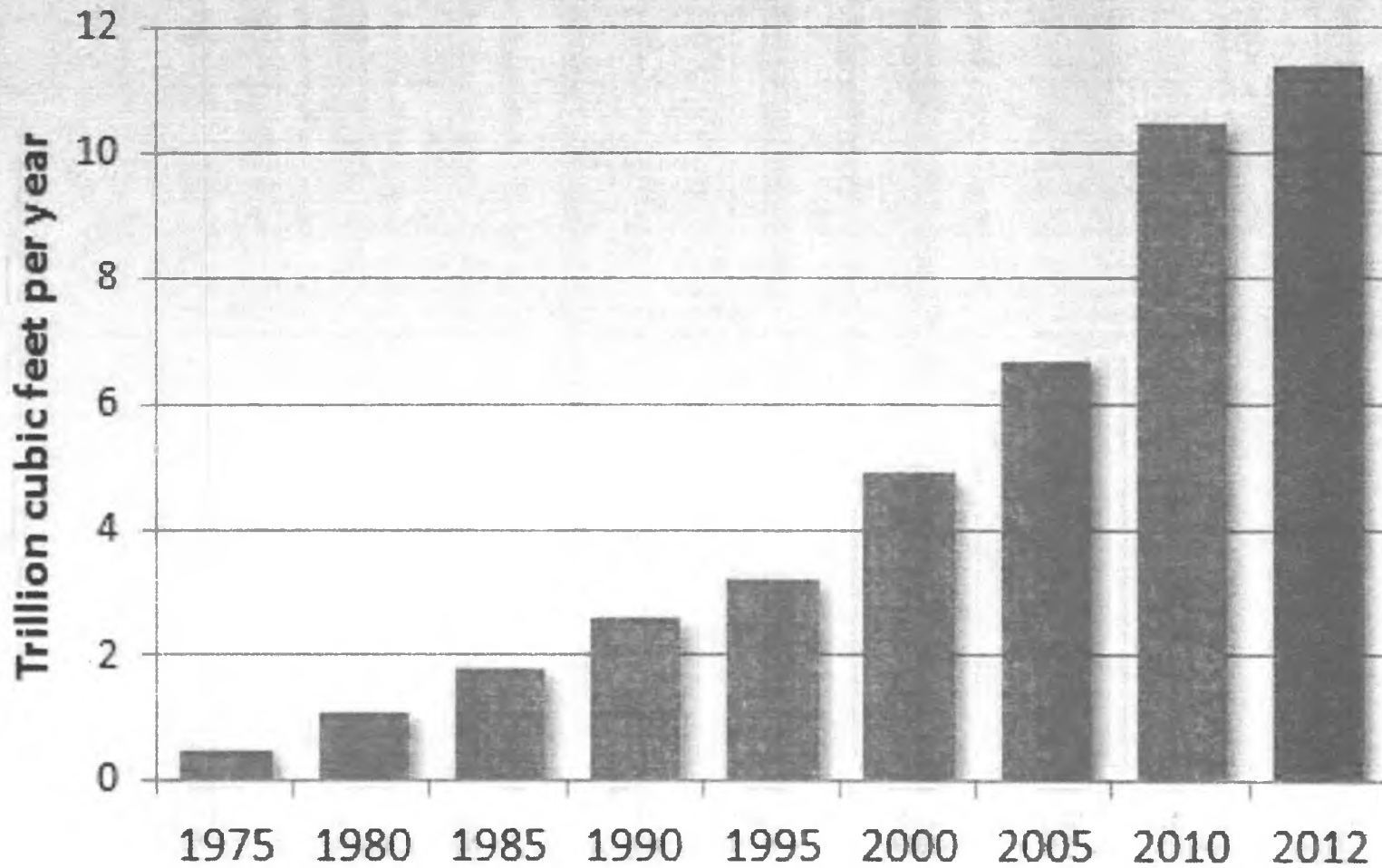


ALASKA NATURAL GAS
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The world changed, not us

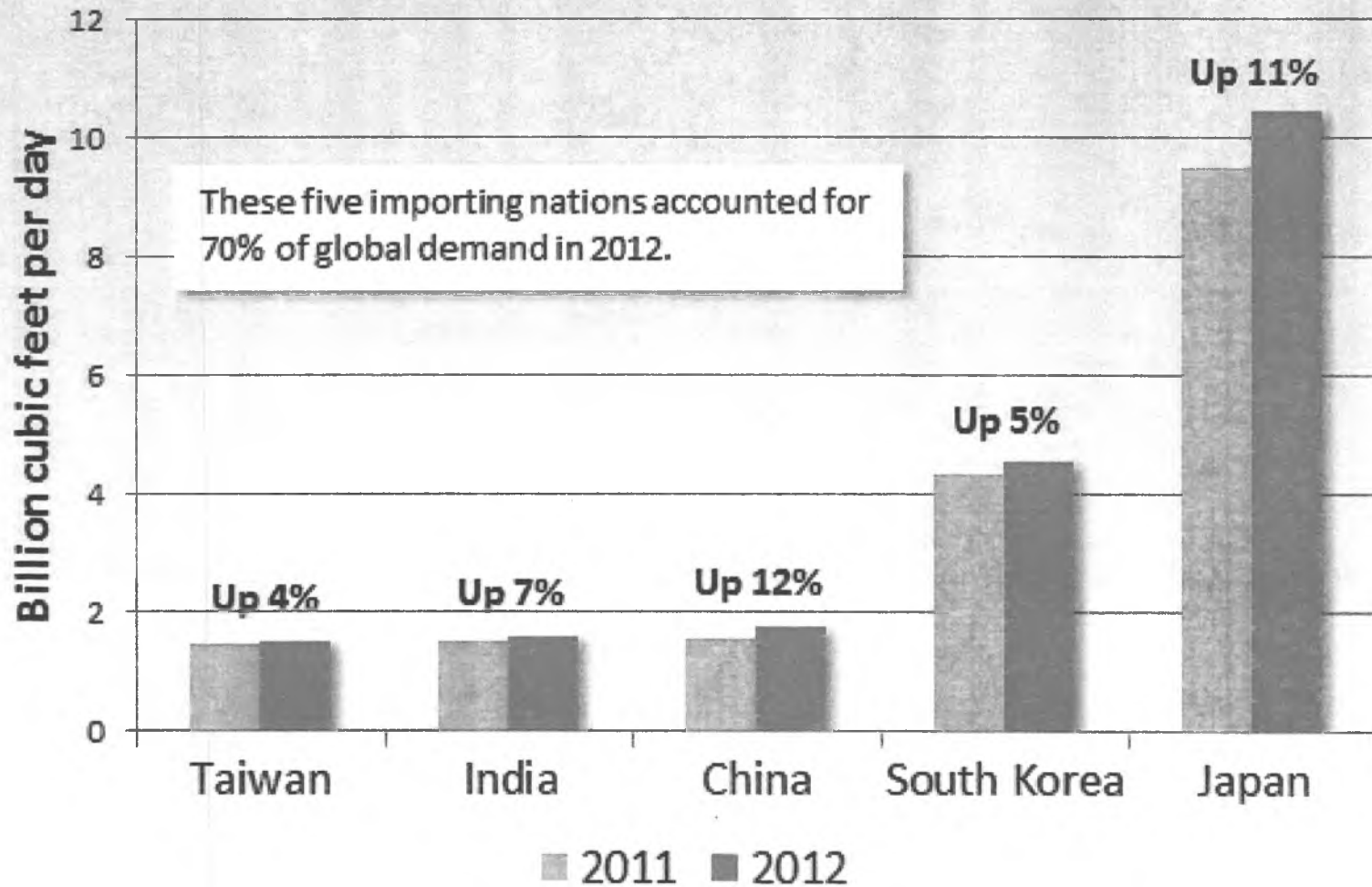
- o Global LNG trade has quadrupled since 1995
- o Asian LNG demand alone could double by 2025
- o China demand growing double-digit annual rate
- o Europe looking for alternatives to Russian gas
- o Worldwide concerns over coal, nuclear plants
- o Alaska LNG could be the victor of circumstances

Global LNG trade grows fast



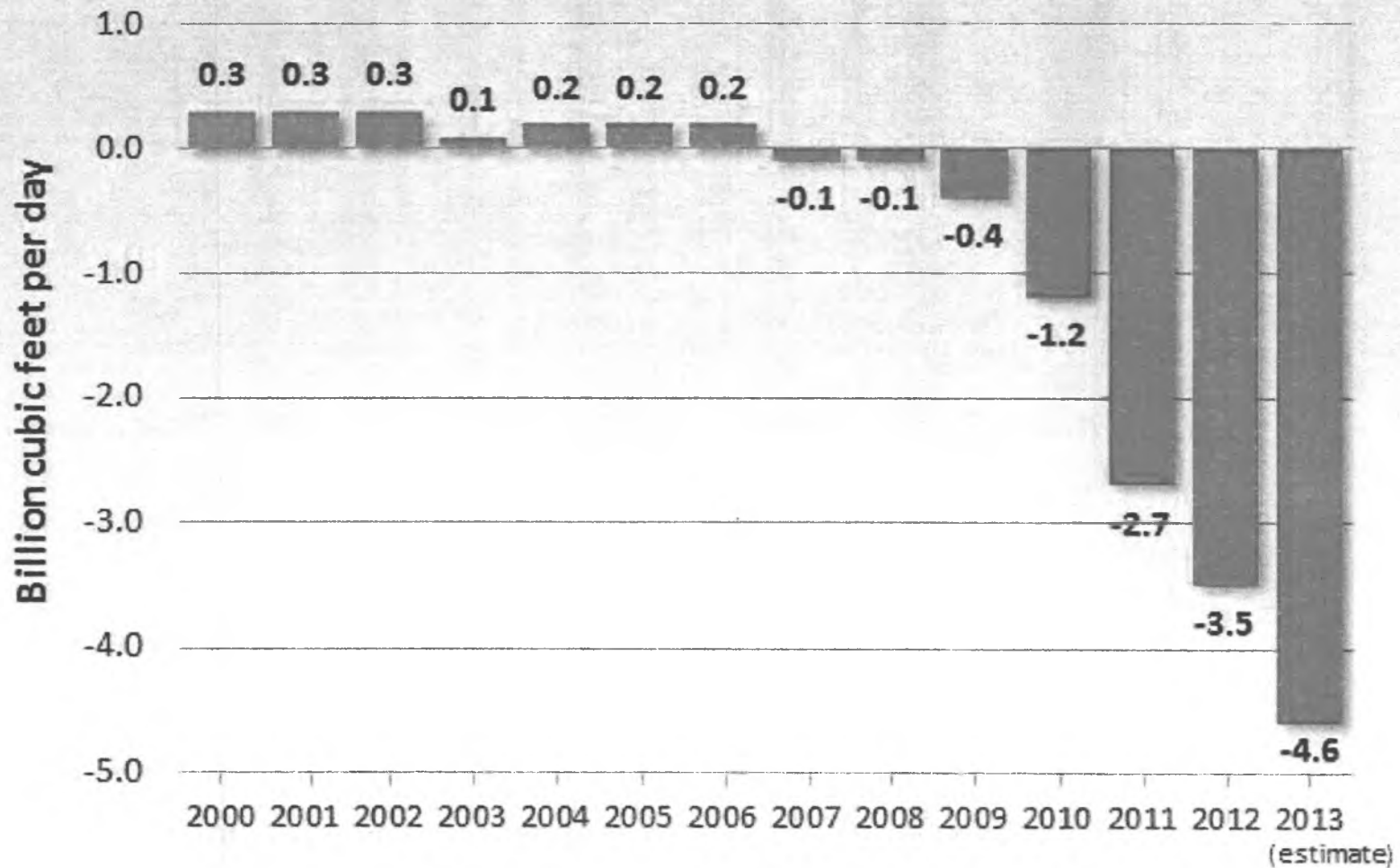
Source: BP Statistical Review of World Energy

Asian LNG imports increased 2011 to 2012



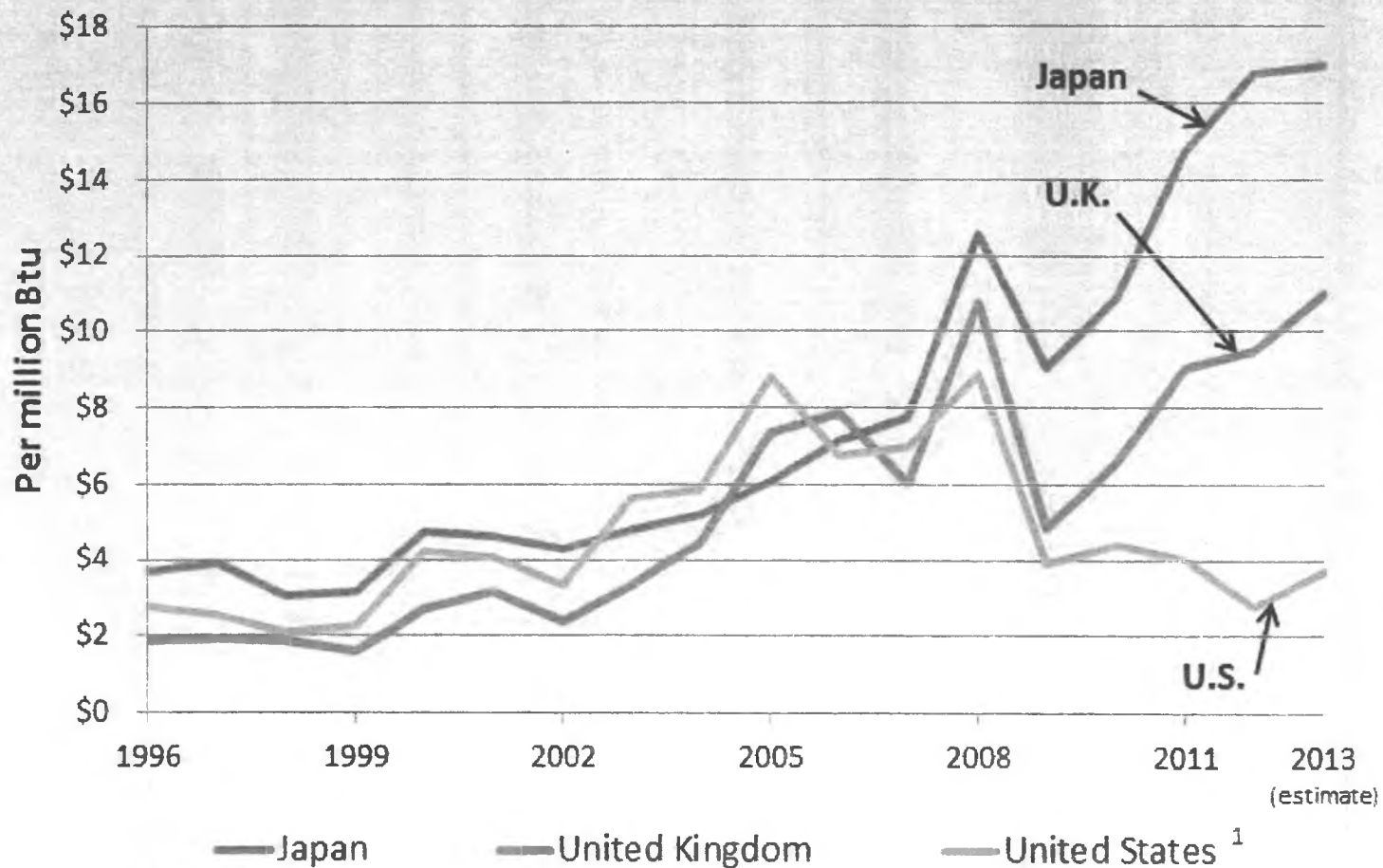
Source: International Group of Liquefied Natural Gas Importers

China's domestic gas supply deficit



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

Global gas prices diverge



¹ Henry Hub price

Source: BP Statistical Review of World Energy

Enough business to share

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

Price is everything

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

No project has it easy

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

Canada eager, but delayed

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

Lower 48 faces hurdles

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

Australia and Russia, too

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

Alaska has its advantages

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

Alaska has changed, too

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

Patience is a virtue

- o Patience is a must for state LNG investment
- o Long wait for the first check — but long payback
- o 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
- o 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

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

Some things haven't changed

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

Big step for Alaska

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

For more information

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