

Update on North American Energy Markets: January 2007

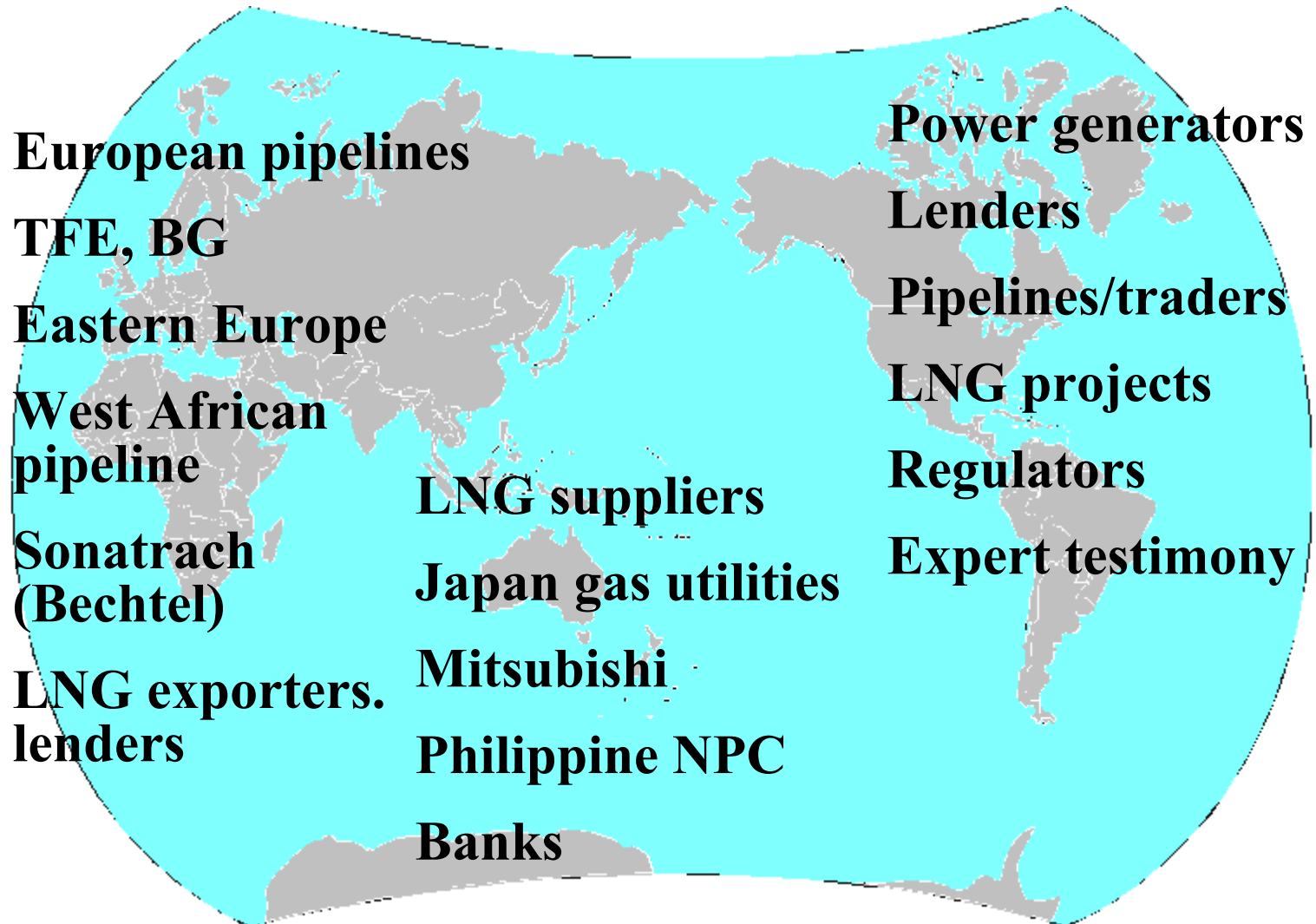
**Benjamin Schlesinger and Associates, Inc. Bethesda,
Maryland, USA**

**UNECE Working Party on Gas
Geneva - January 23, 2007**

Agenda

1. Introduction
2. Snapshot:
 - Supply
 - Demand
 - Price
3. LNG returns to North America
4. Conclusions/directions.

BSA's client areas



Snapshot of the North American gas market.

- ◆ US is 2nd largest gas producer; 6th largest reserve holder.
- ◆ Natural gas meets 22% of all US primary energy use
- ◆ 74% of US gas production is non-associated.
- ◆ Domestic production serves 81% of the US market; most of the rest is imported from Canada.
- ◆ LNG supplied under 3% of the US market in 2006 (1.6 Bcf/d), a *decrease* from 2004-05.
- ◆ Canada is world's 3rd largest gas producer, 2nd largest gas exporting country.
- ◆ Practically uniform gas quality specifications throughout North America, e.g., 950-1050 Btu/cf.

Potential gas in North America equal nearly 70x annual use.

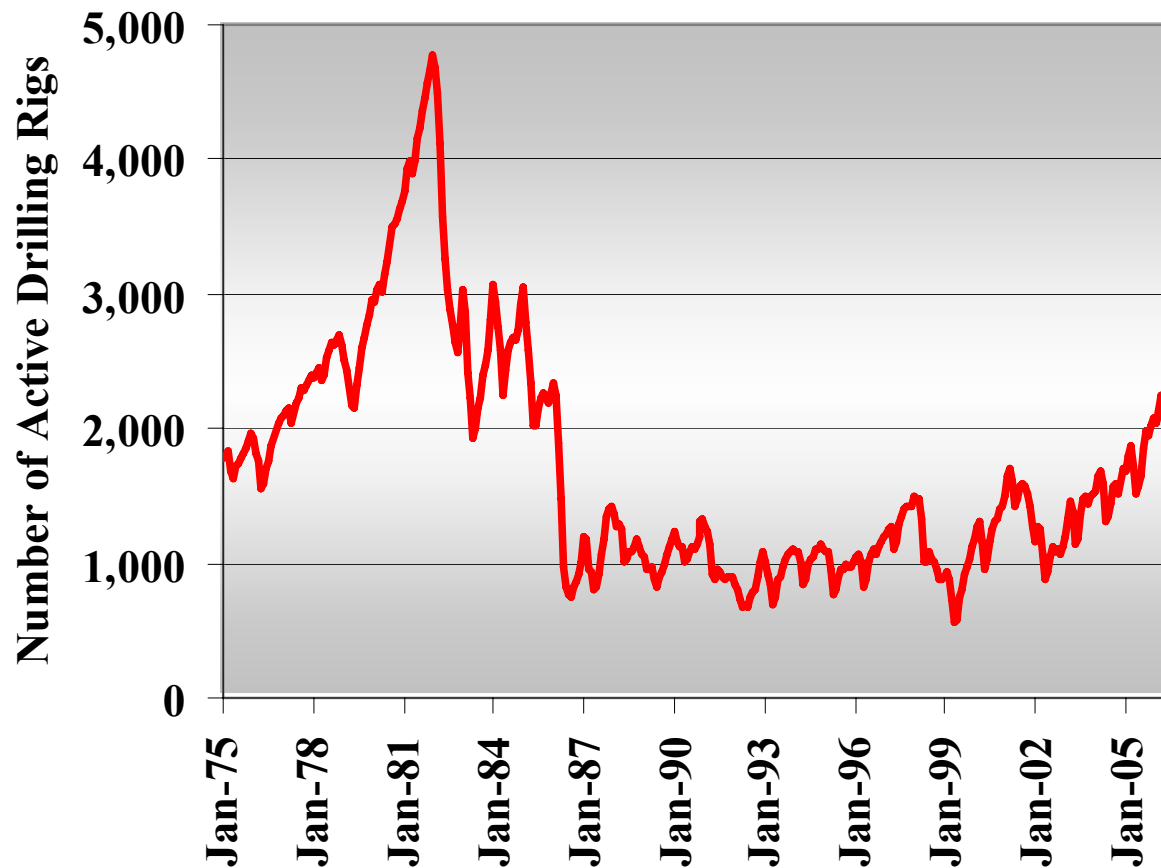
Natural Gas

	<i>US</i>	<i>Canada</i>	<i>Mexico</i>
Unproved resources, Tcm	35.6	9.6	2.8
Proved reserves, Tcm	5.5	1.6	0.6
Production in 2005, Mcm	544	181	48
R/P	10.1	8.9	12.4



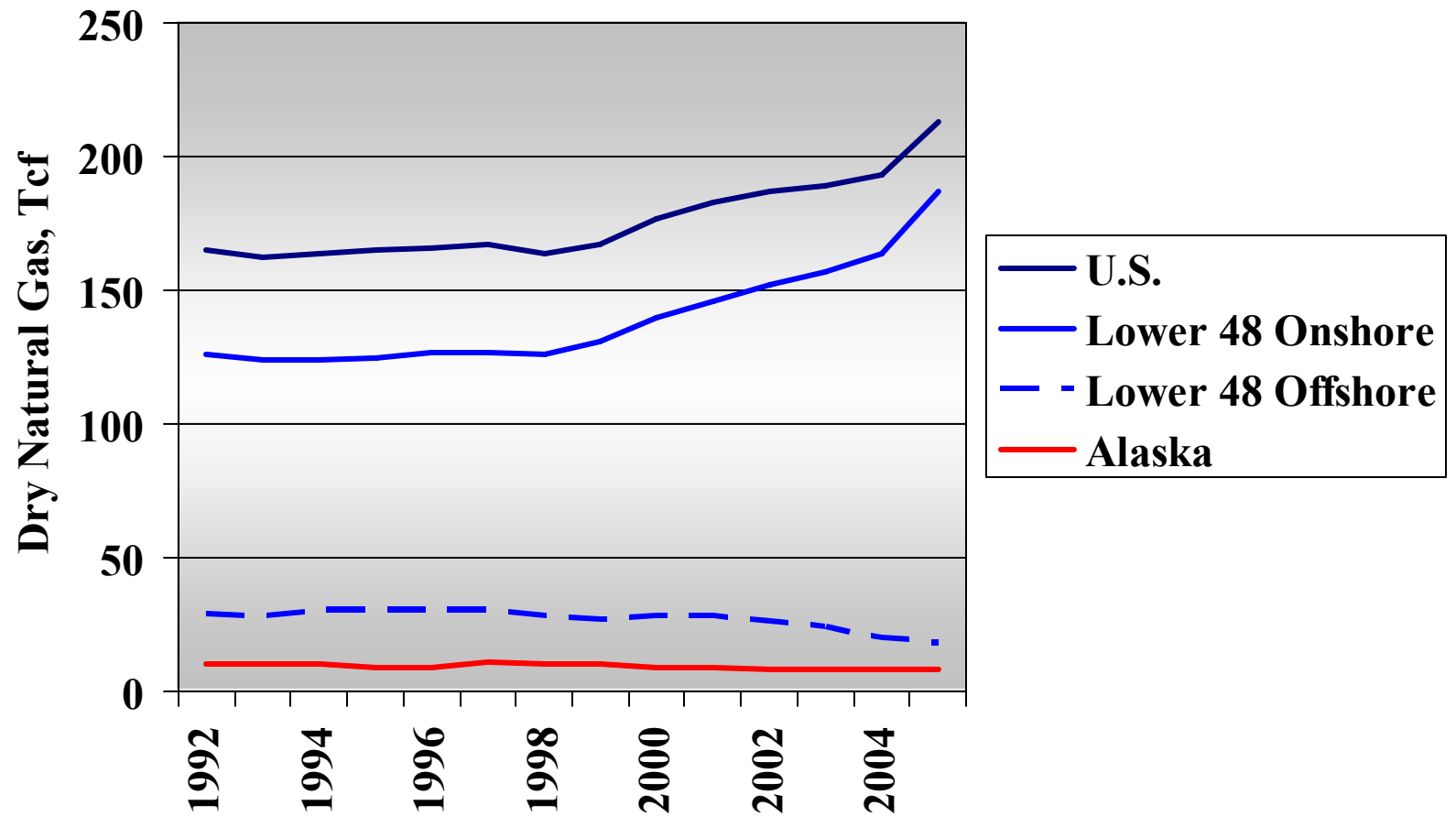
Source: BSA 2006, from U.S. National Petroleum Council, EIA; NEB, CRE, 2004 data.

Drilling activity is stepping up in the US and Canada.



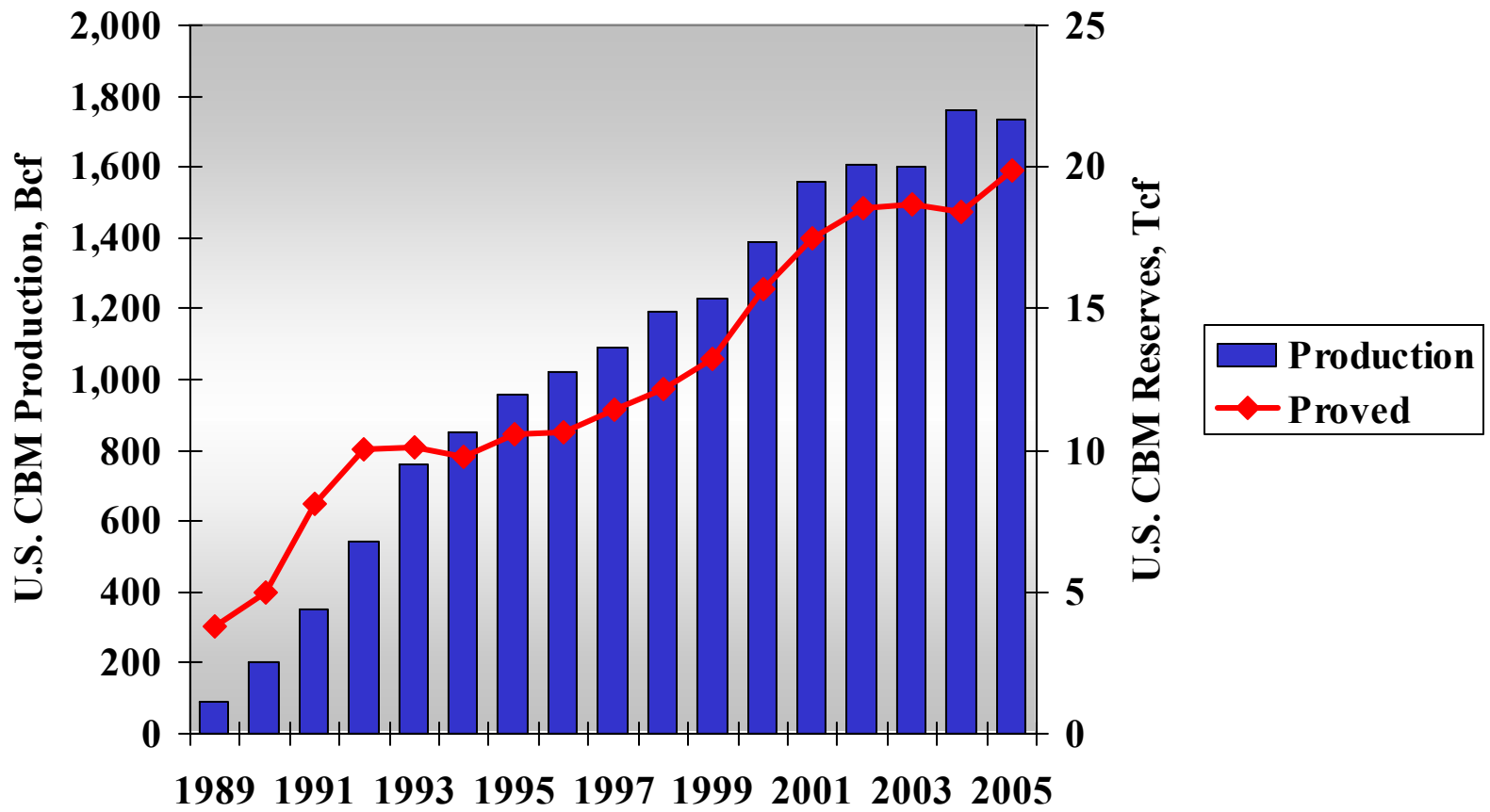
Source: BSA 2006, from Baker Hughes Inc. Worldwide Rig Count.

Unconventional gas is driving growth in US proved reserves.



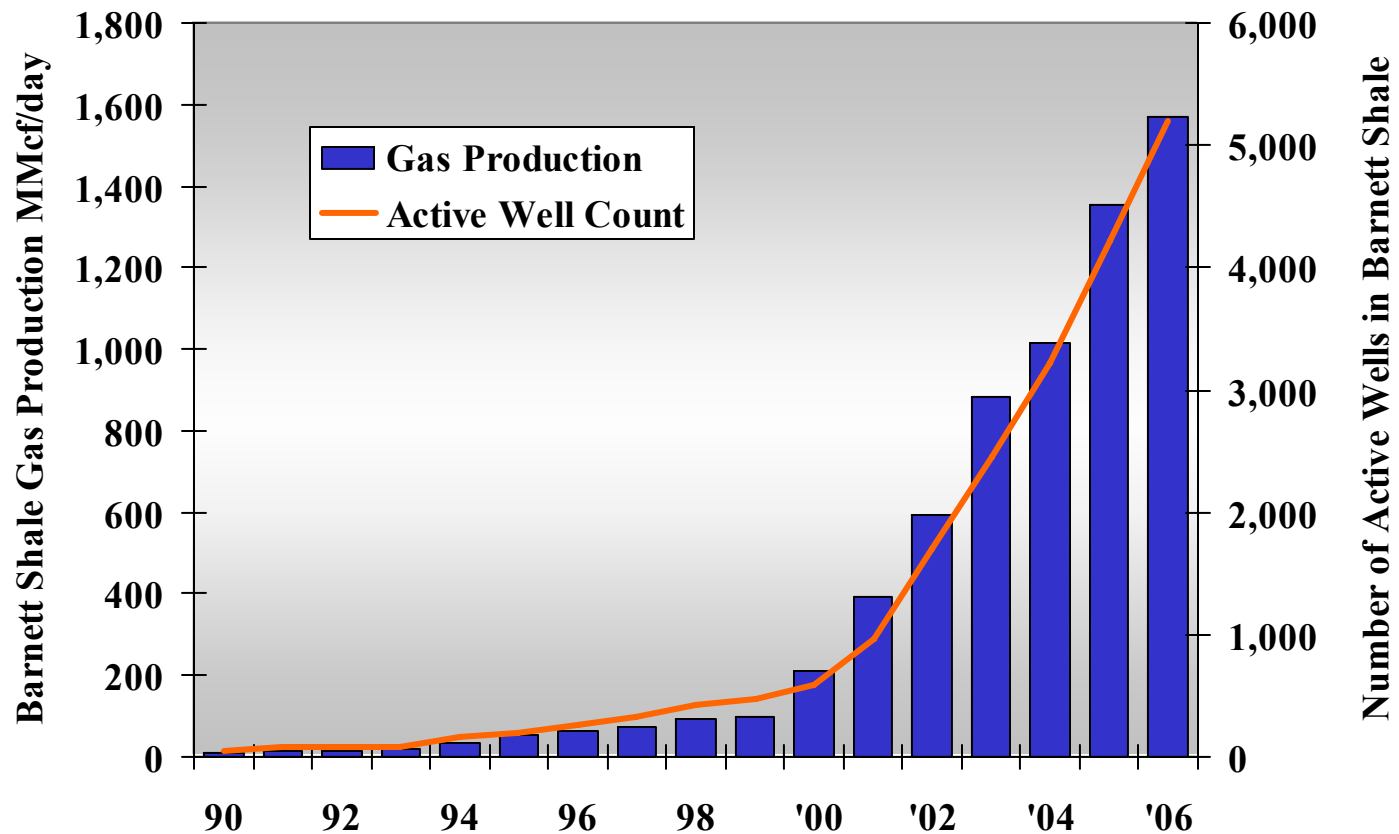
Source: BSA 2006, from EIA.

Coal-bed methane (CBM) now supplies 10% of the US gas market.



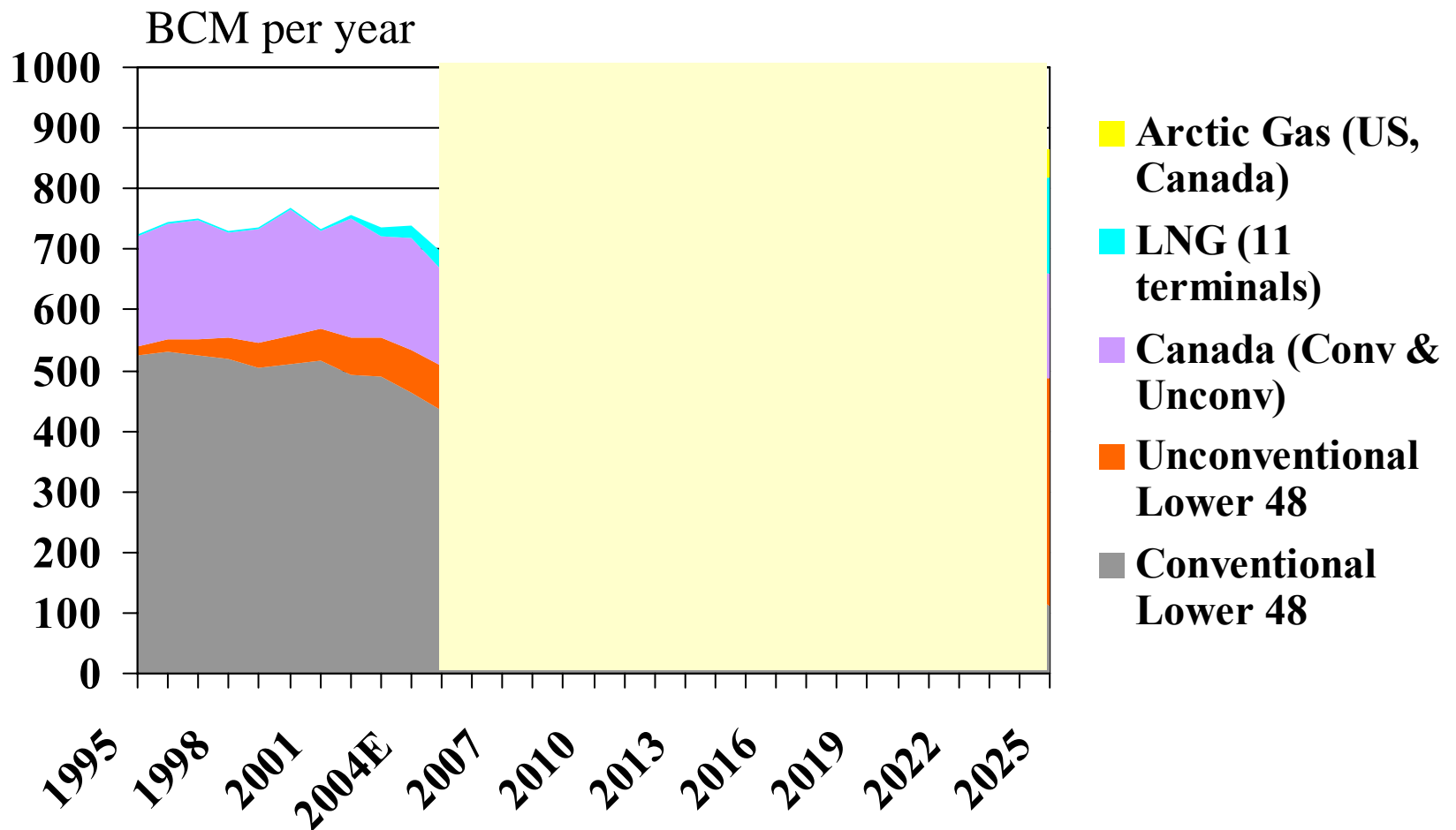
Source: BSA 2006, from EIA; note: reserves decline in 2005 caused by production jump.

Barnett Shale is another growing unconventional play.



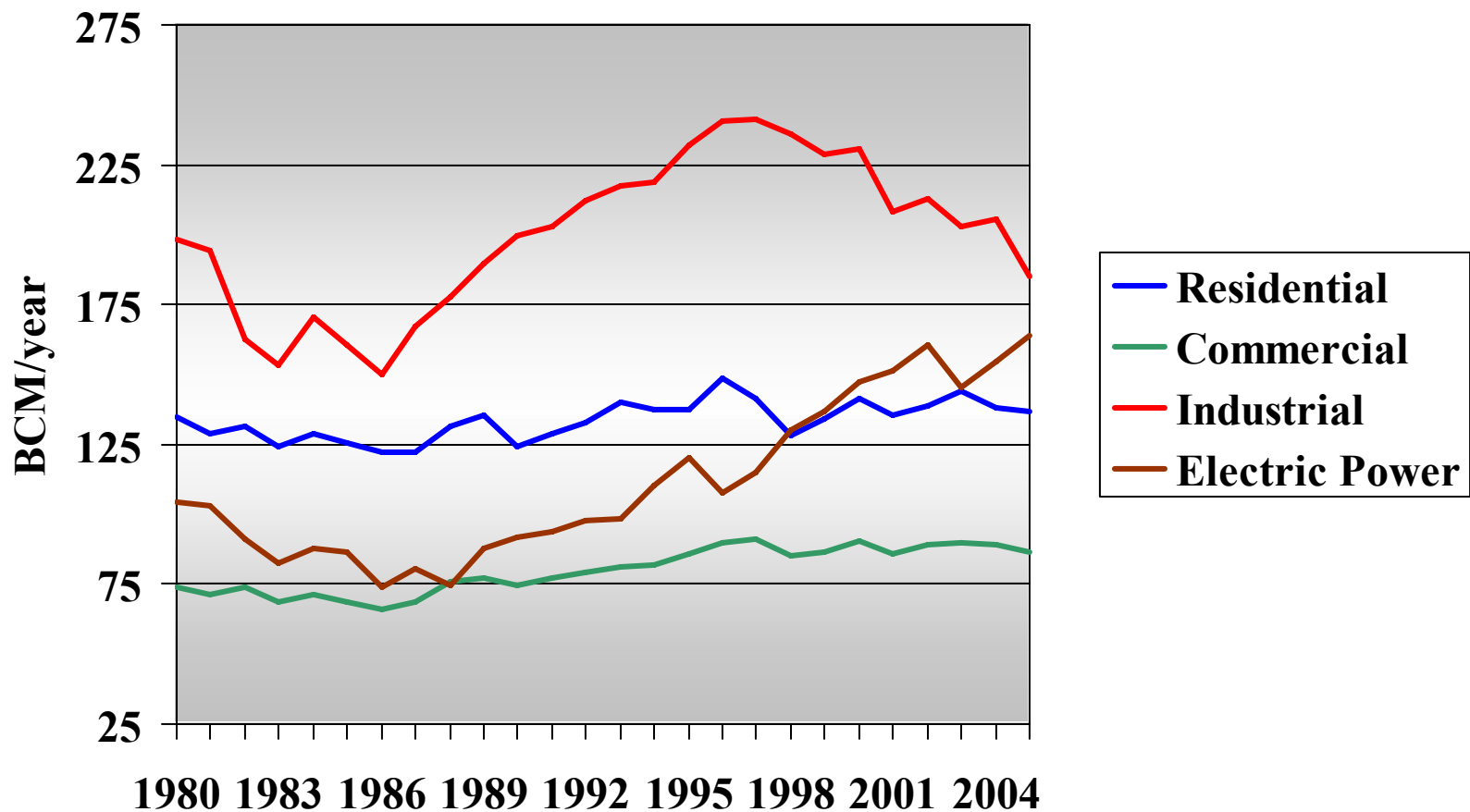
Source: BSA 2006, from Texas RRC, IHS, Pickering.

Unconventional gas will largely replace conventional gas.



Source: BSA 2006.

Industrial users have shed gas demand relentlessly since 1998.



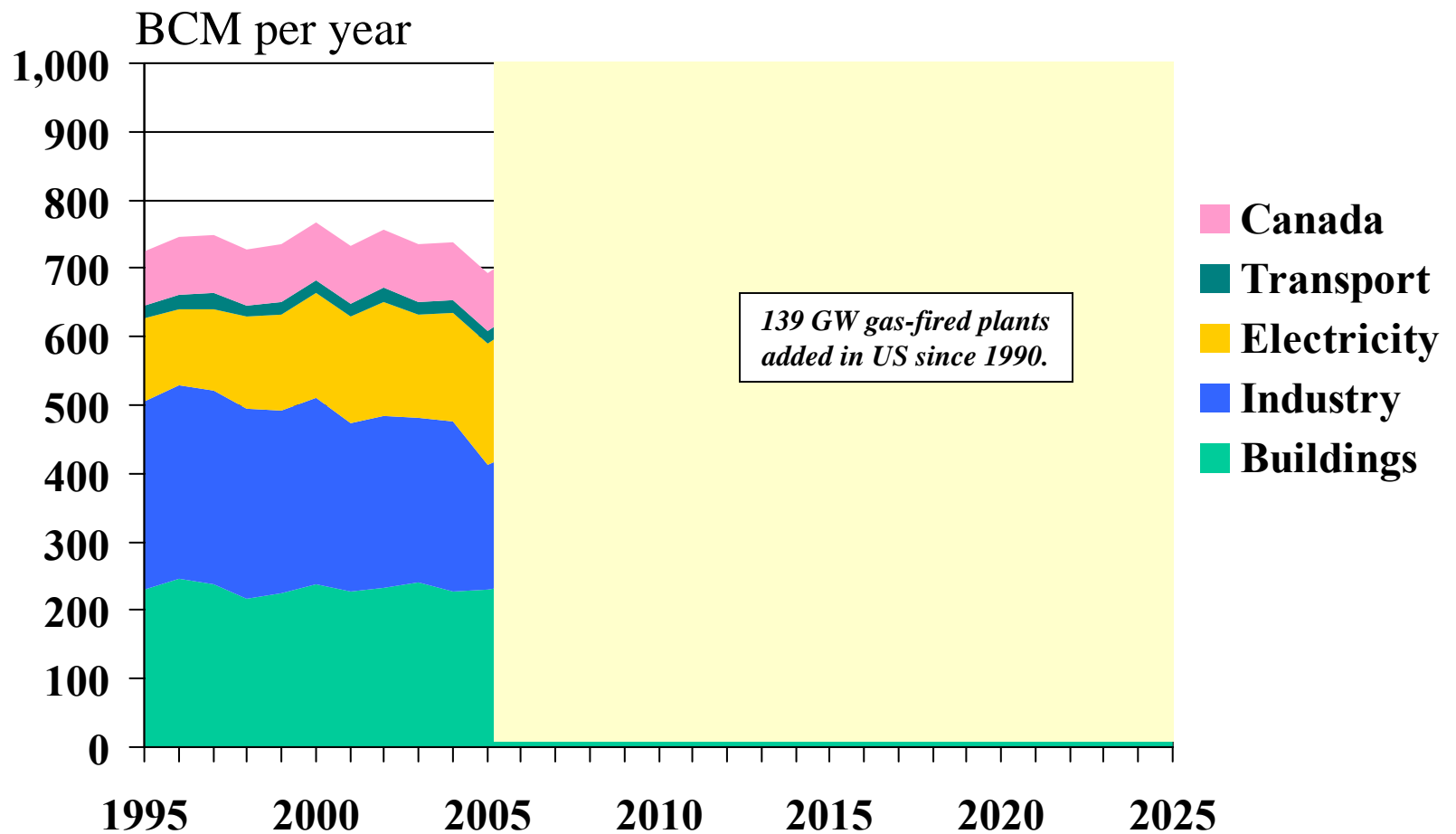
Source: BSA 2006, from EIA, in-house estimates.

CNG vehicles are encountering market competitors.



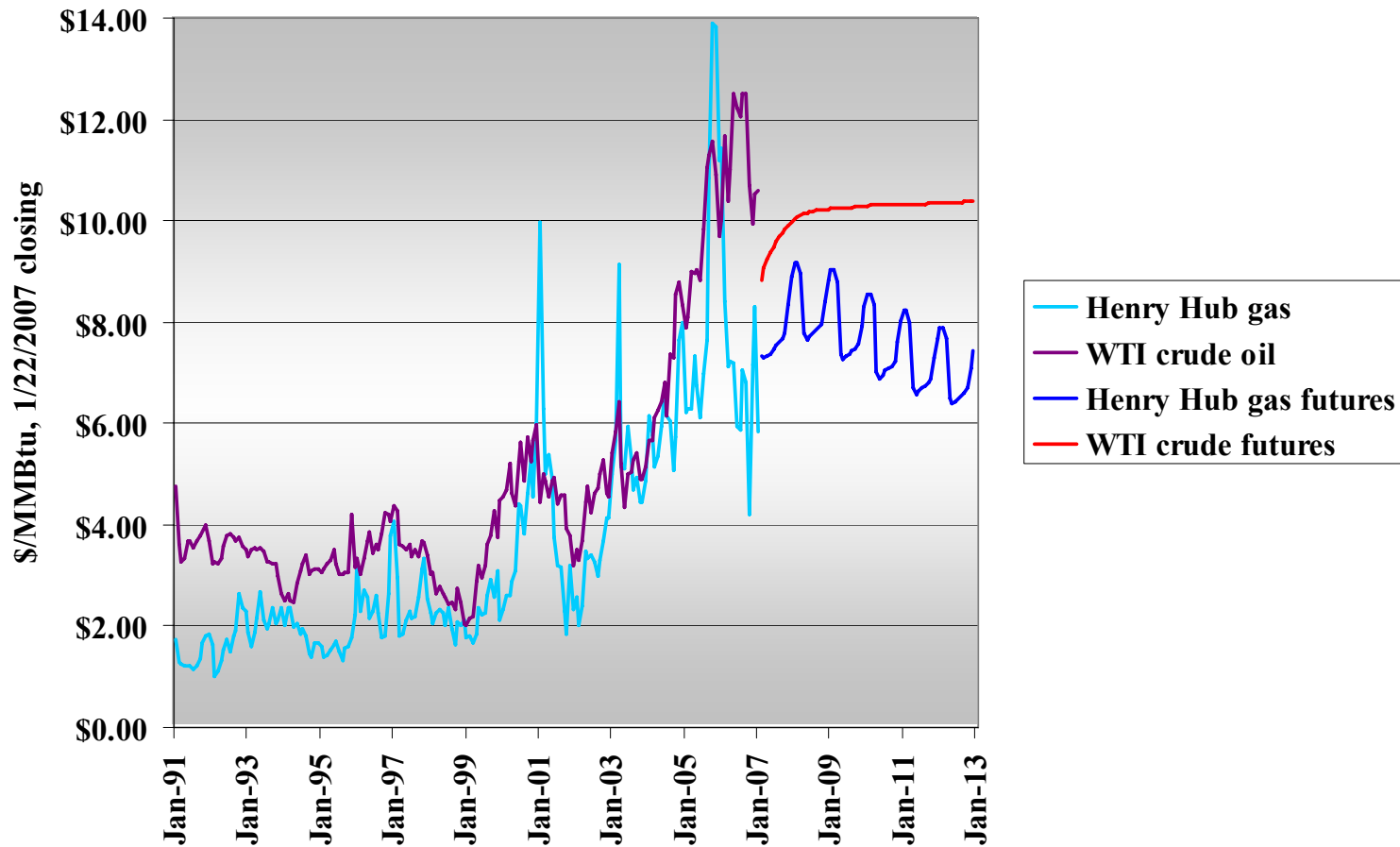
- ◆ Current growth in:
 - Gasoline-electric hybrids
 - Ethanol vehicles
 - Biodiesel usage
- ◆ ...is supplanting much of the enthusiasm for CNG vehicles, despite NGVs' total lack of petroleum demand.

Gas demand growth will level out due to higher prices.



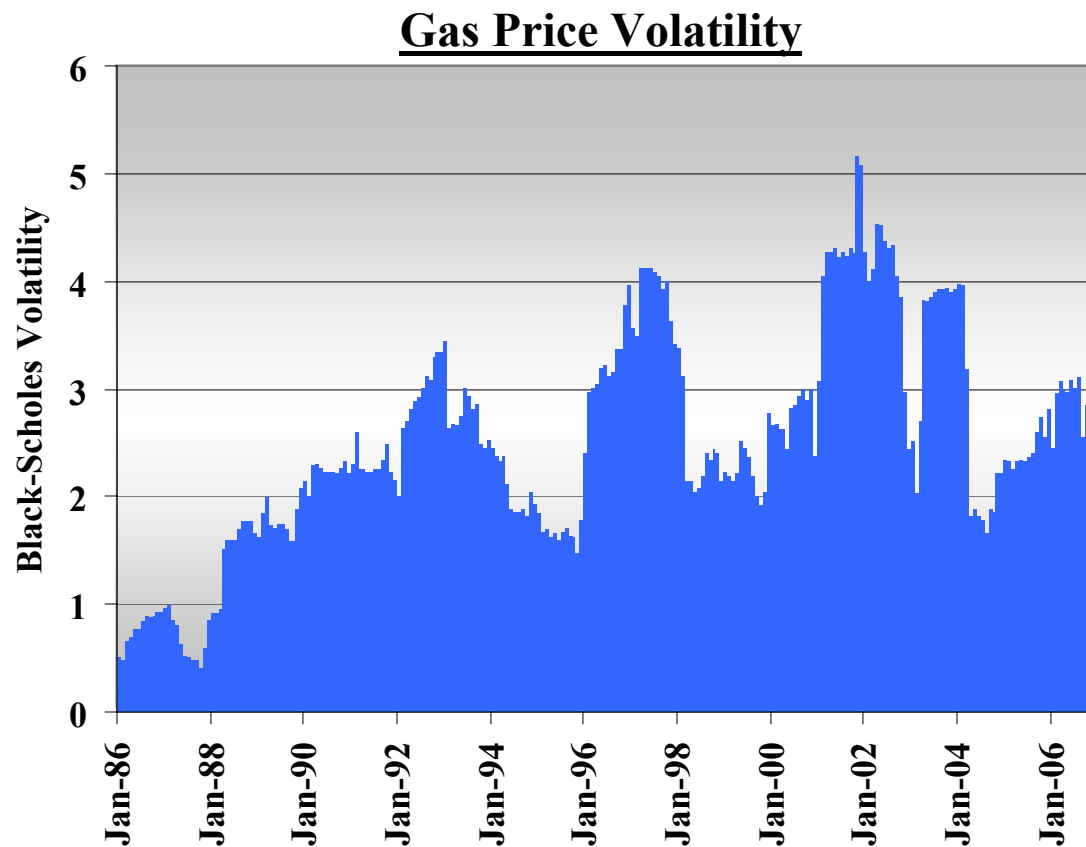
Source: 2006 BSA forecast, historical data from EIA/NPC.

Gas prices have fallen from hurricane peaks, but futures remain high.



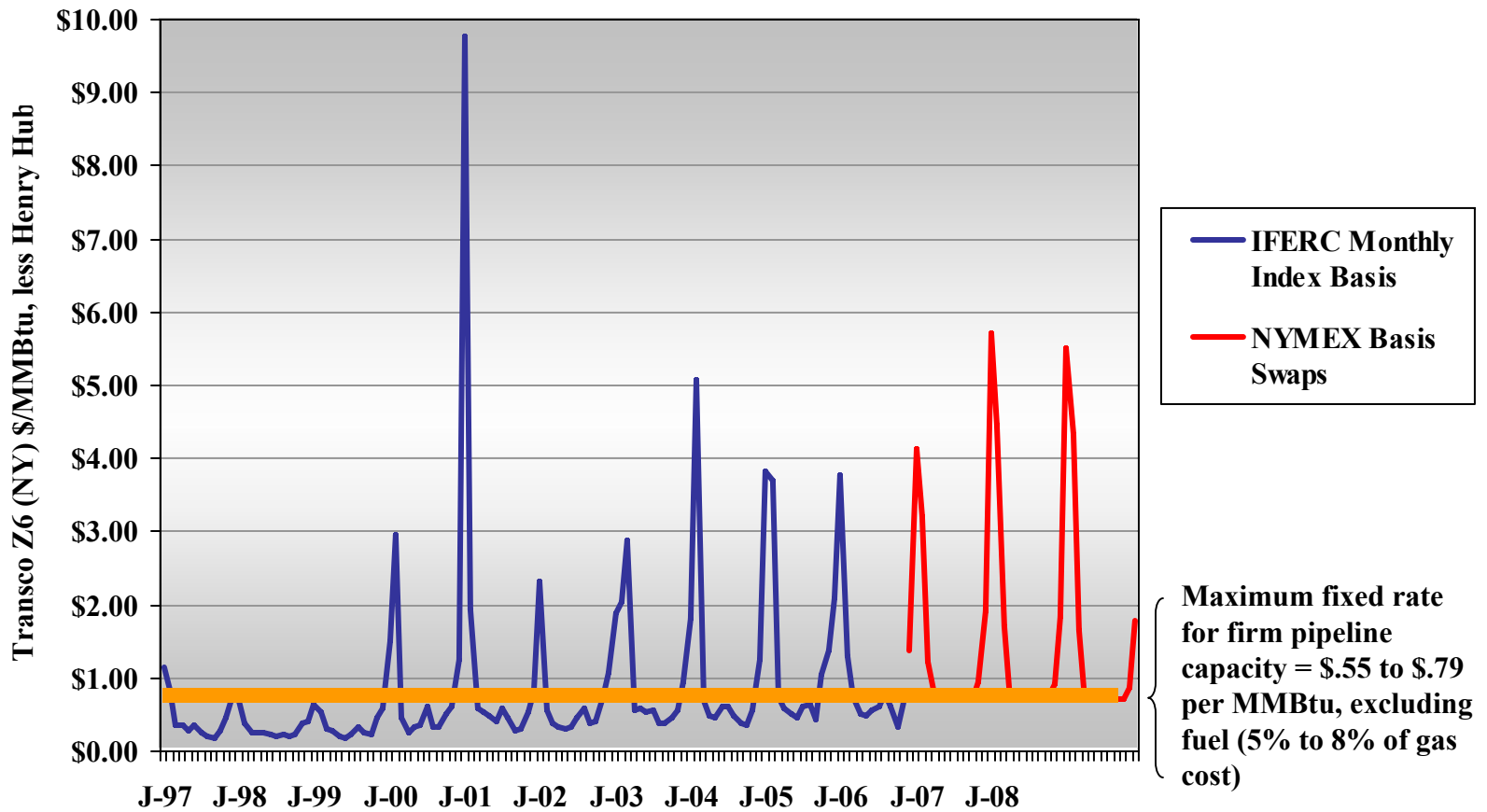
Source: BSA 2007, from Platt's, NYMEX.

Henry Hub prices are currently in a severe disconnect from oil prices.



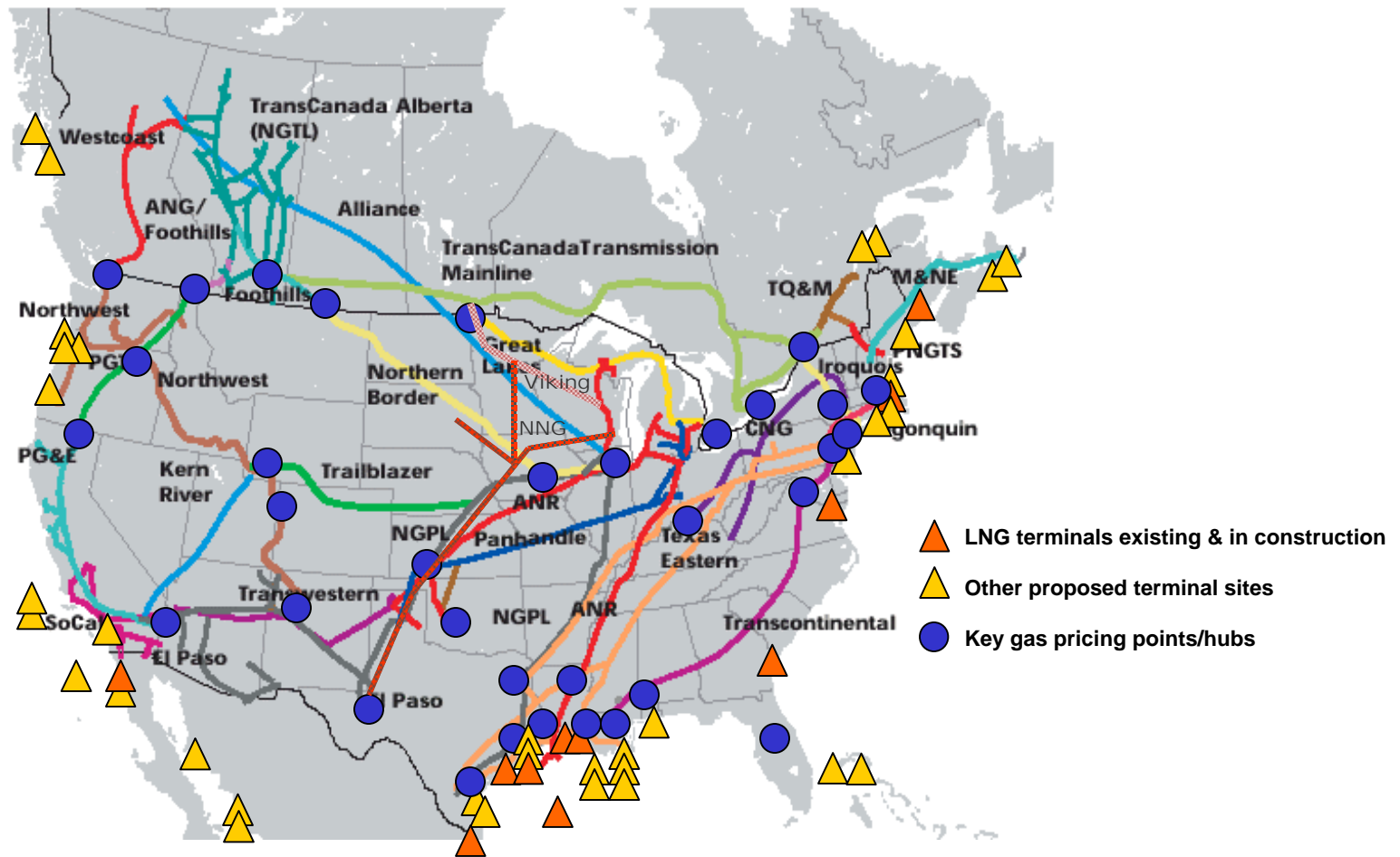
Source: BSA 2007, from NYMEX, Platts.

Northeast basis is highly seasonal, and has been rising for 10 years.



Source: BSA 2006, from Platts, NYMEX 20-Nov-06 close.

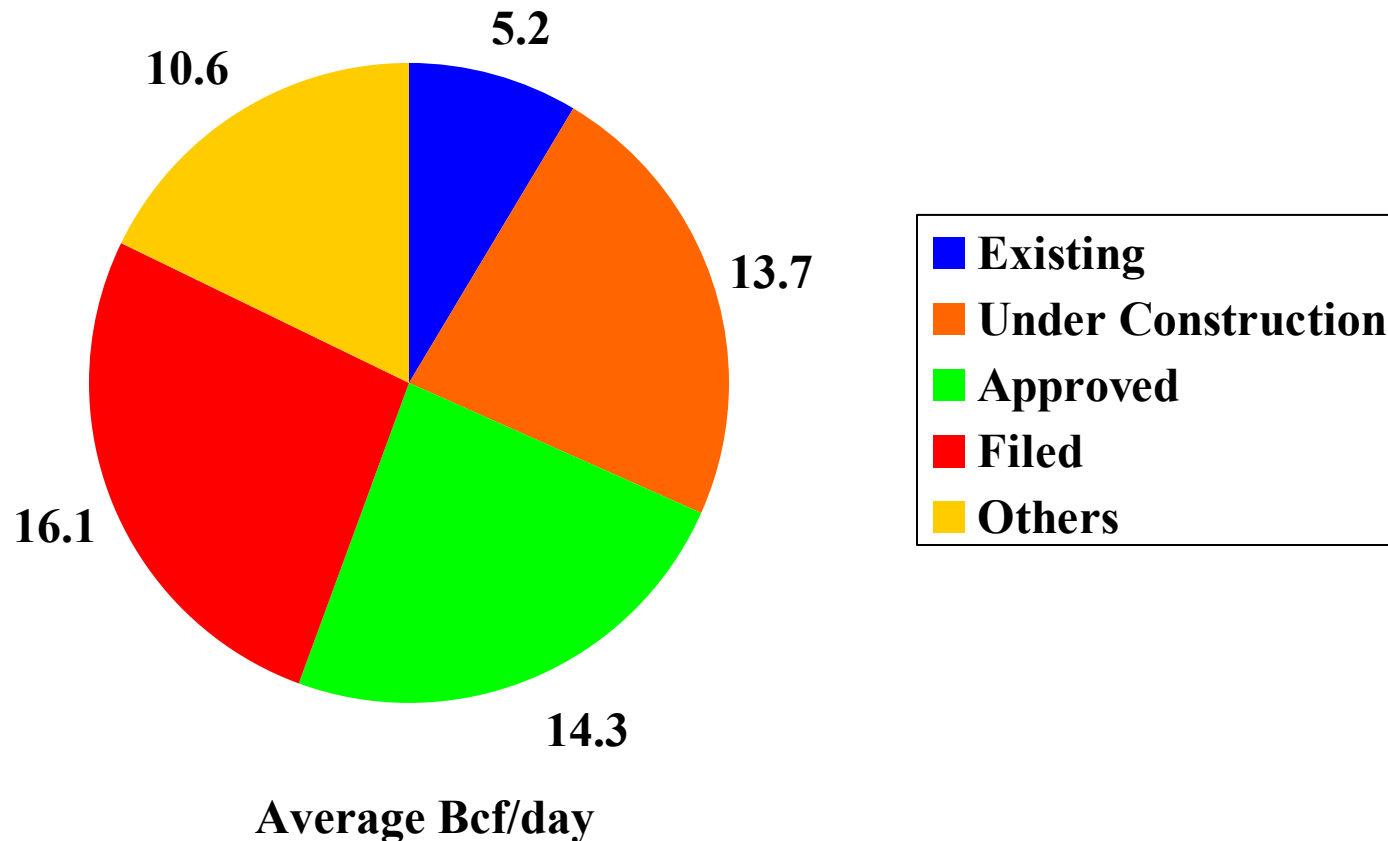
Proposed LNG receiving/regas terminals dot the coastlines.



*The long-awaited weeding of
proposed LNG import terminals
finally began in 2006.*



But fifty (50) LNG terminals are still somehow in the works!



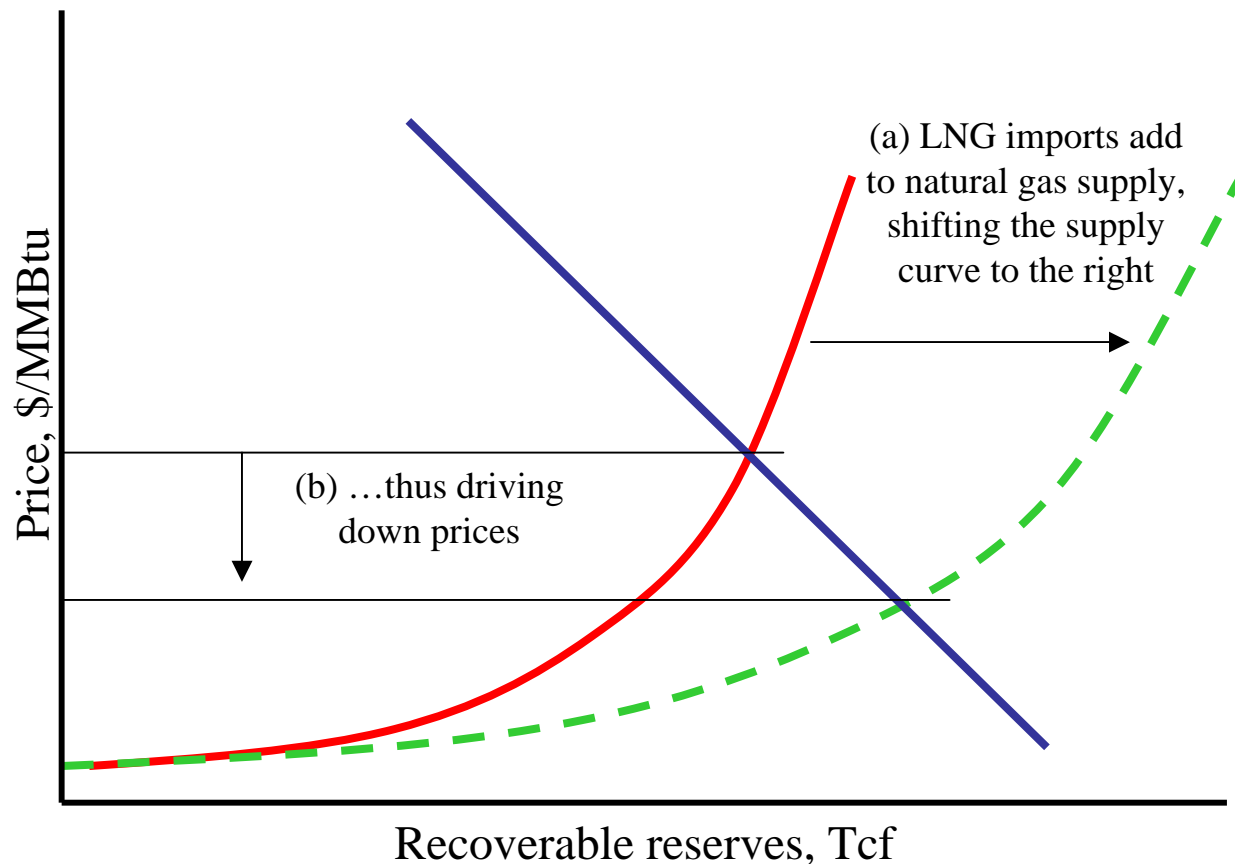
Source: BSA 11/2006 update, from FERC and project data.

Congress codified the FERC's encouraging "Hackberry" Rule.

- ◆ In a 2002 decision approving Sempra's Cameron terminal, FERC adopted an extraordinarily pro-LNG policy.
 - Viewed LNG's role in future US gas supplies as imperative
 - Recognized need for international investment
 - Plainly conceded international commerce can't be regulated here
 - LNG terminals economically deregulated, much like gas wells.
- ◆ US Energy Policy Act of 2005 (Domenici-Barton) adopted the Hackberry rule, and extended it through 2015:
 - Placed LNG terminal siting under FERC's final purview
 - Governors can veto offshore but not onshore sites.

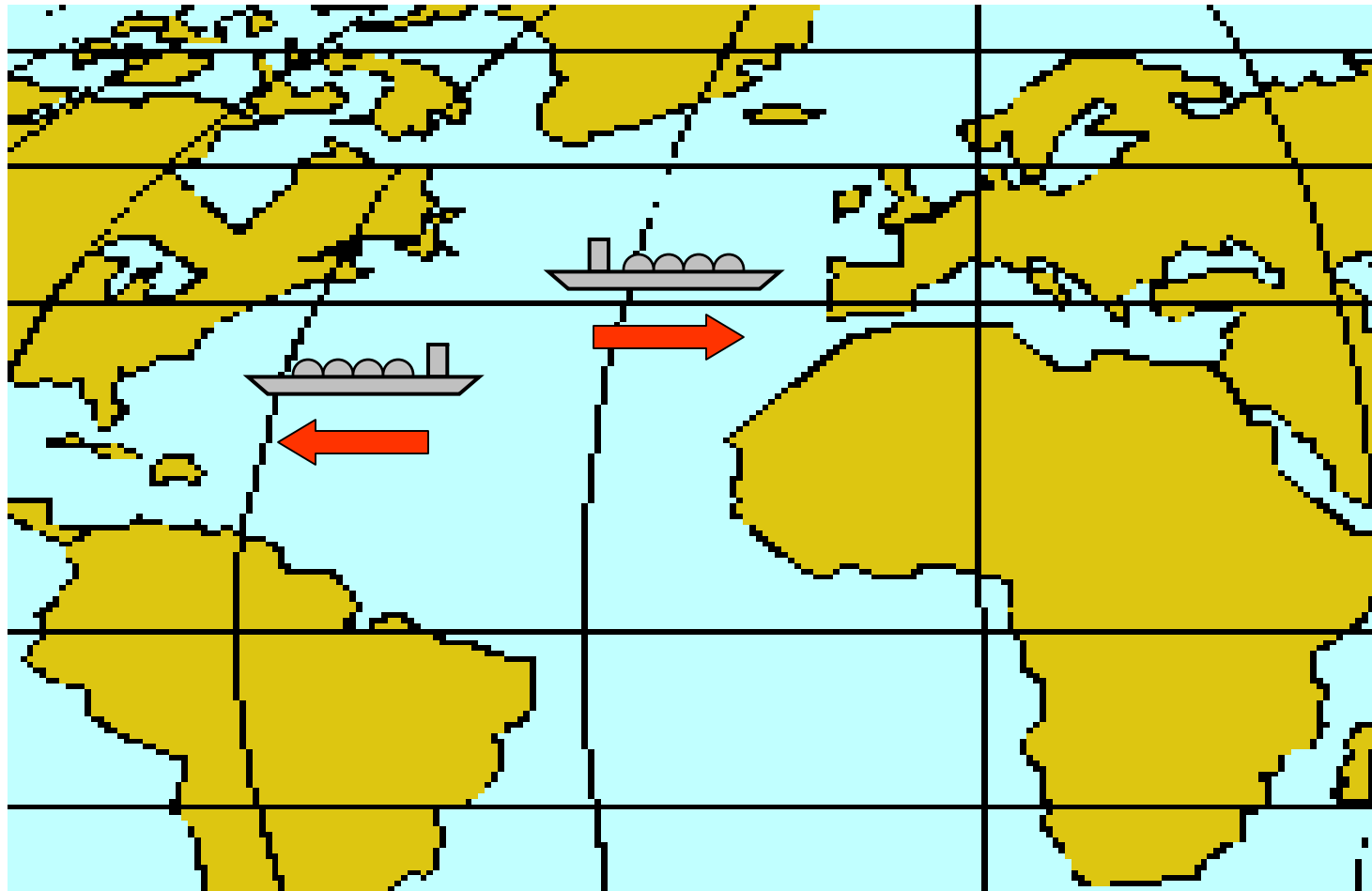
But wait, is LNG really the same as a gas well?

LNG will displace higher-cost gas, and reduce prices where it lands.



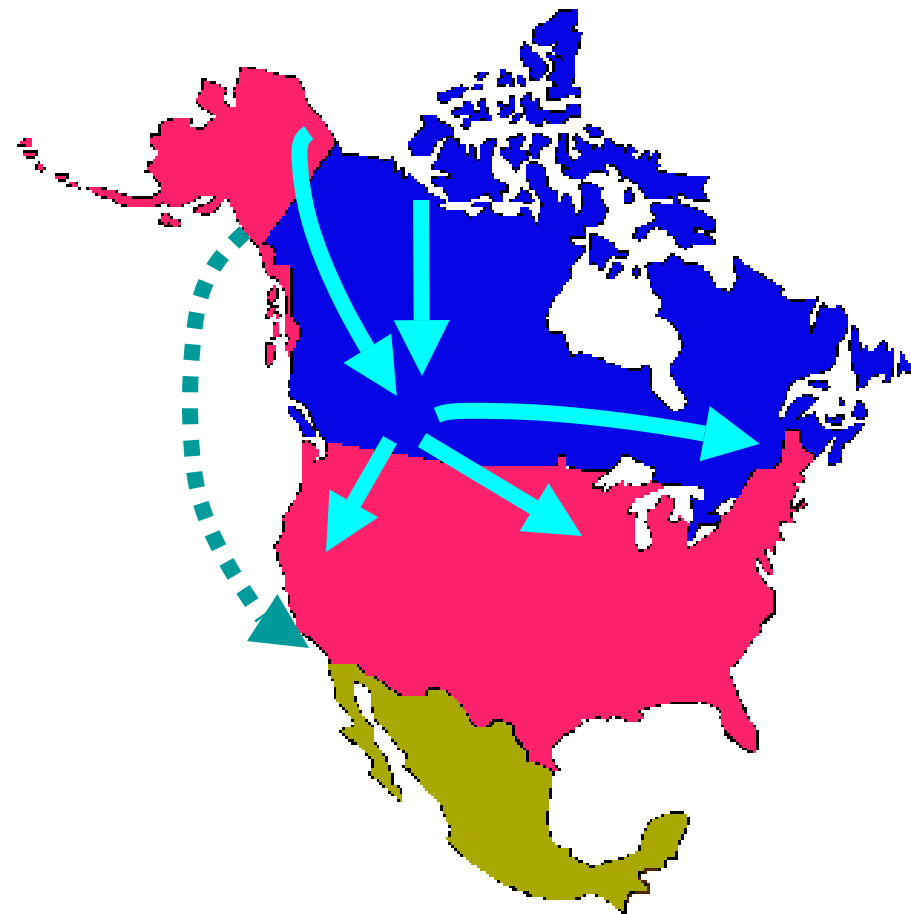
In practice, however, because of international buyer competition – i.e., US commodity gas markets vs. petroleum-indexed European/Asian markets – LNG may support and strengthen North American prices....

With spare terminal capacity, LNG cargoes will drive out arbitrage.



Arctic gas: Rising demand will enable supplies to enter markets.

- ◆ Arctic gas pipelines will enter service in the next decade.
- ◆ Alberta's importance as a hub will grow.
- ◆ Arctic gas won't have a major effect on reducing LNG import volumes.



Conclusions:

- ◆ Extraordinarily high gas prices are reducing demand; gas from coal (IGCC) has become the power plant of choice.
- ◆ The physical and financial gas trading business remains active.
- ◆ LNG's share of North American gas supplies will rise to 15-20 Bcf/day within a decade – mostly to the Gulf; diverse suppliers are emerging on five continents.
- ◆ LNG will bring international gas market pressures to North America, reinforcing the oil price correlation and changing internal basis relationships.
- ◆ The Alaskan gas pipeline will ease prices in the late 2010s.



Benjamin Schlesinger and Associates, Inc.
The Bethesda Gateway
7201 Wisconsin Avenue, Suite 740
Bethesda, MD 20814
Phone: (301) 951-7266
Fax: (301) 951-3381
Visit us at www.BSAenergy.com