Comparison of Views On The Outlook For Natural Gas Markets

Prepared for

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Outline

Compare EIA and EVA Forecasts for Natural Gas

- Where do they differ and why

Demand

- Electric Sector

Supply

- LNG

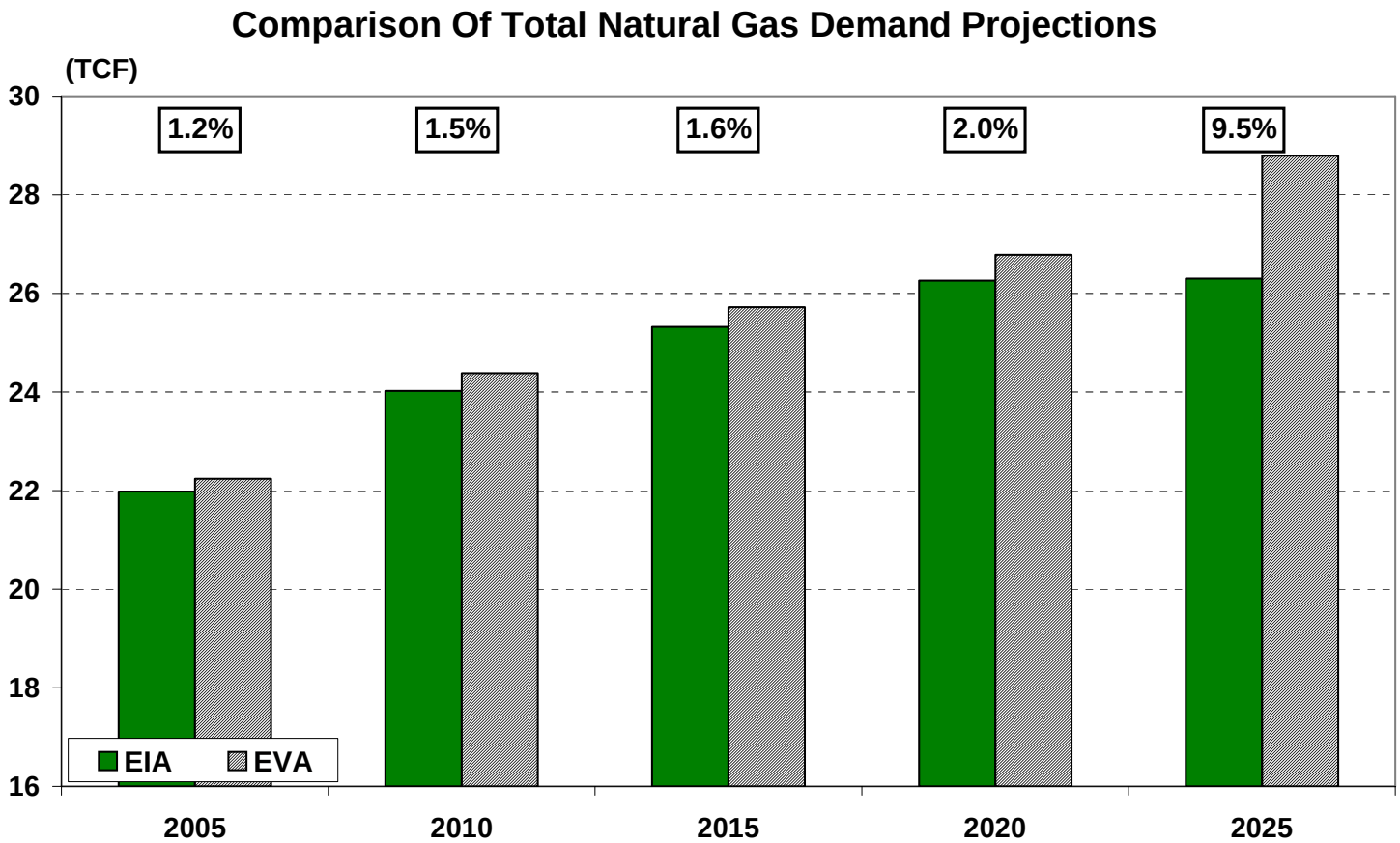
Prices

Total Natural Gas Demand

2005 to 2020: Amazingly Close in Projections

- Difference for 2005 reflects recent revisions in historical data

2025: Distinct Difference Emerges: Difference equals 6.8 BCFD



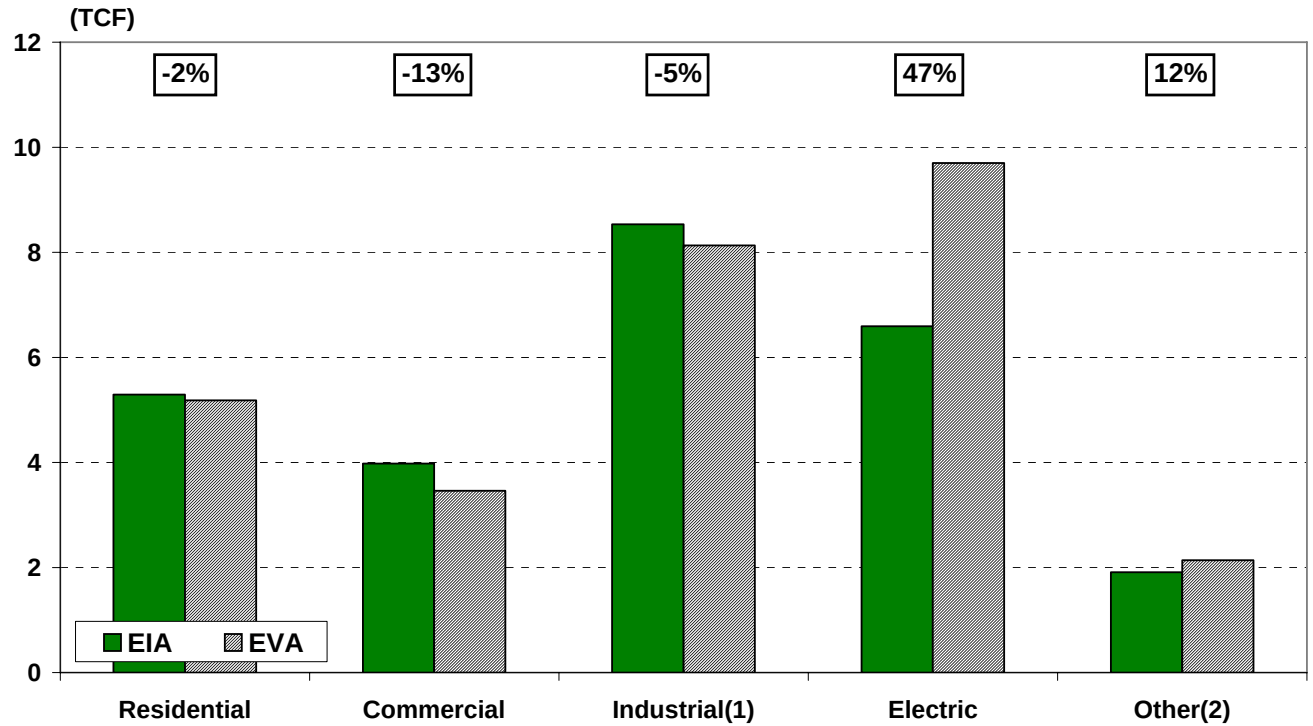
Note: Percentages equal amount EVA outlook varies from EIA outlook.

Natural Gas Demand By Sector

While Outlook For Total Demand Is Close, There Are Differences For Individual Sectors

- Key concern is the potential impact of EIA being correct on Resid, Comm and Ind Sectors and EVA being correct on the Elect Sector
  - ➤ Equates to a 2.5 to 9.3 BCFD increase, depending upon one's reference point.

Comparison Of 2025 Natural Gas Demand By Sector



(1) Includes Transportation.
(2) Pipeline, Lease & Plant Fuel.
Note: Percentages equal amount EVA outlook varies from EIA outlook.

Observations Concerning Sectors

Difference	EVA's View
0.3 BCFD Residential	Most of the recent structural and behavioral conservation that occurred in response to high gas prices will be permanent. However, the behavioral component is debatable.
1.4 BCFD Commercial	The continued structural conservation that occurred in response to high gas prices will offset partially the impact of economic growth. However, topic is debatable.
1.1 BCFD Industrial	EVA does not project a rebound in industrial gas demand. Most of the losses appear permanent. Both outlooks assume growth in ethanol.
8.6 BCFD Electric	EVA projects greater growth in electricity demand and less coal-fired generation.

Residential Sector

High Gas Prices Have Resulted In Both Structural And Behavioral Conservation Within The Sector

- Structural: Insulation, double pane windows, etc.
- Behavioral: Reduced thermostat settings, etc.

Permanence Of The Behavioral Component Is The More Debatable Of The Two Phenomena

- Anecdotal data from LDC's
- Models
- Recent empirical evidence
  - ➤ Table for November and December 2004.
  - ➤ Similar results for February 2006.

Recent Conservation Within The Residential Sector

	November		December		Total For Two Months		Percent
	2004	2003	2004	2003	2004	2003	Change
Heating Degree Days	487	477	802	784	1,289	1,261	2.2%
Consumption (BCF)							
Residential	409	414	728	739	1,137	1,153	(1.4%)

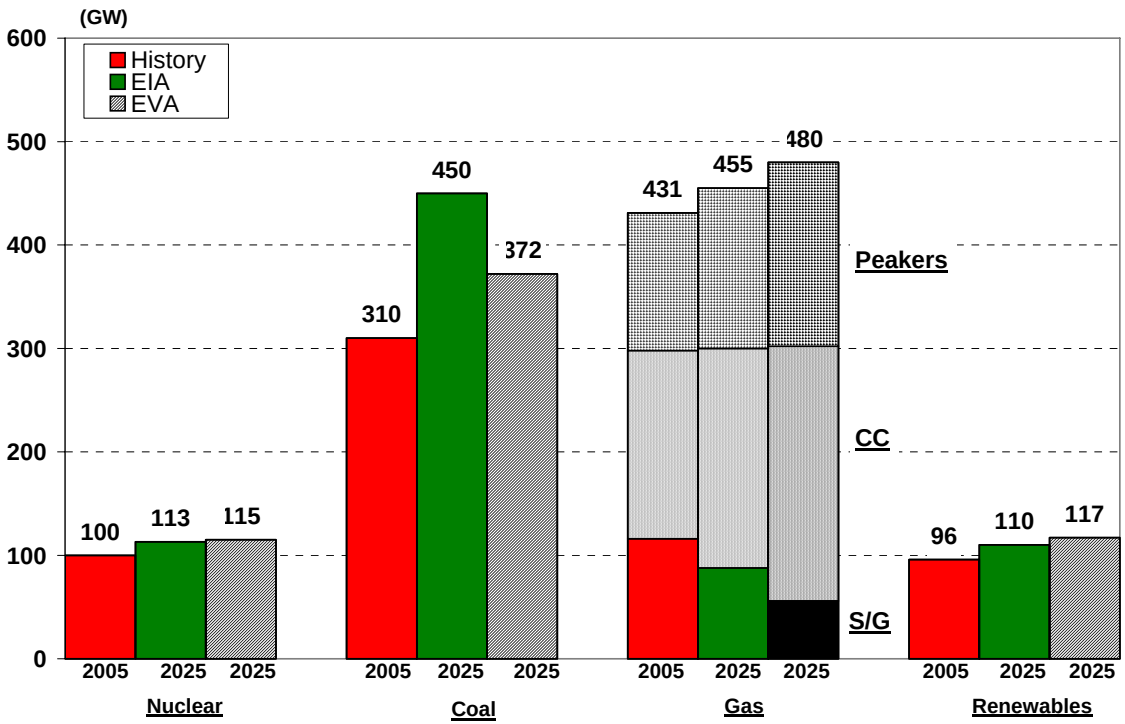
Source: NOAA and EIA.

Electric Sector

Major Areas Of Difference

- EVA projects higher electric demand growth rate (1.3 vs. 1.8%/annum)(1)
  - ➤ Critical issue because gas-fired generation is at the margin.
- EVA projects less coal-fired capacity and thus more gas-fired capacity
  - ➤ Key driver is differing views on 'future' CO_2 requirements.

Projections for Electric Power Capacity

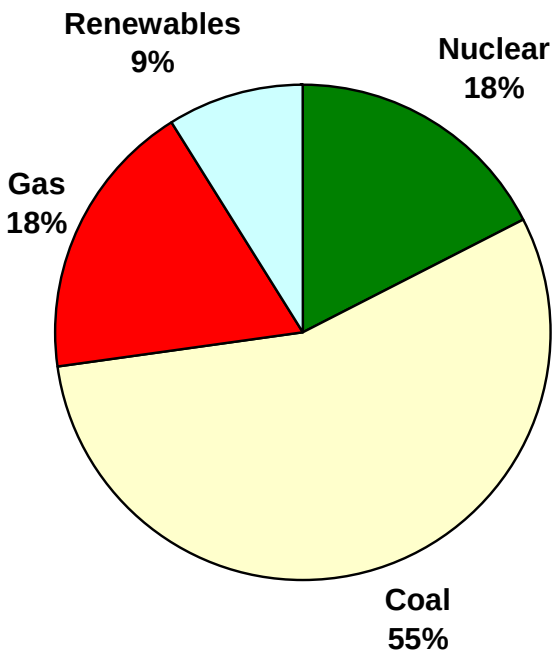


(1) Net energy available to grid.

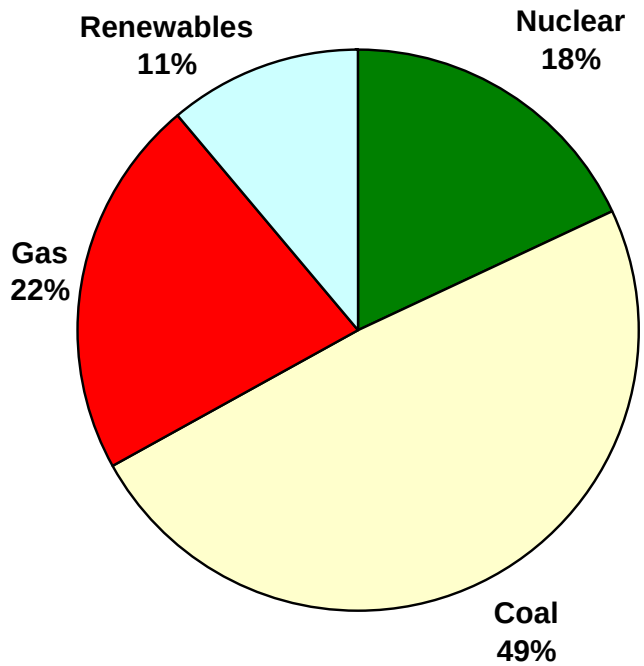
Electric Sector Generation

Net Result Of Two Factors Is 32 Percent More Gas-Fired Generation In 2025

Projections for Electric Generation

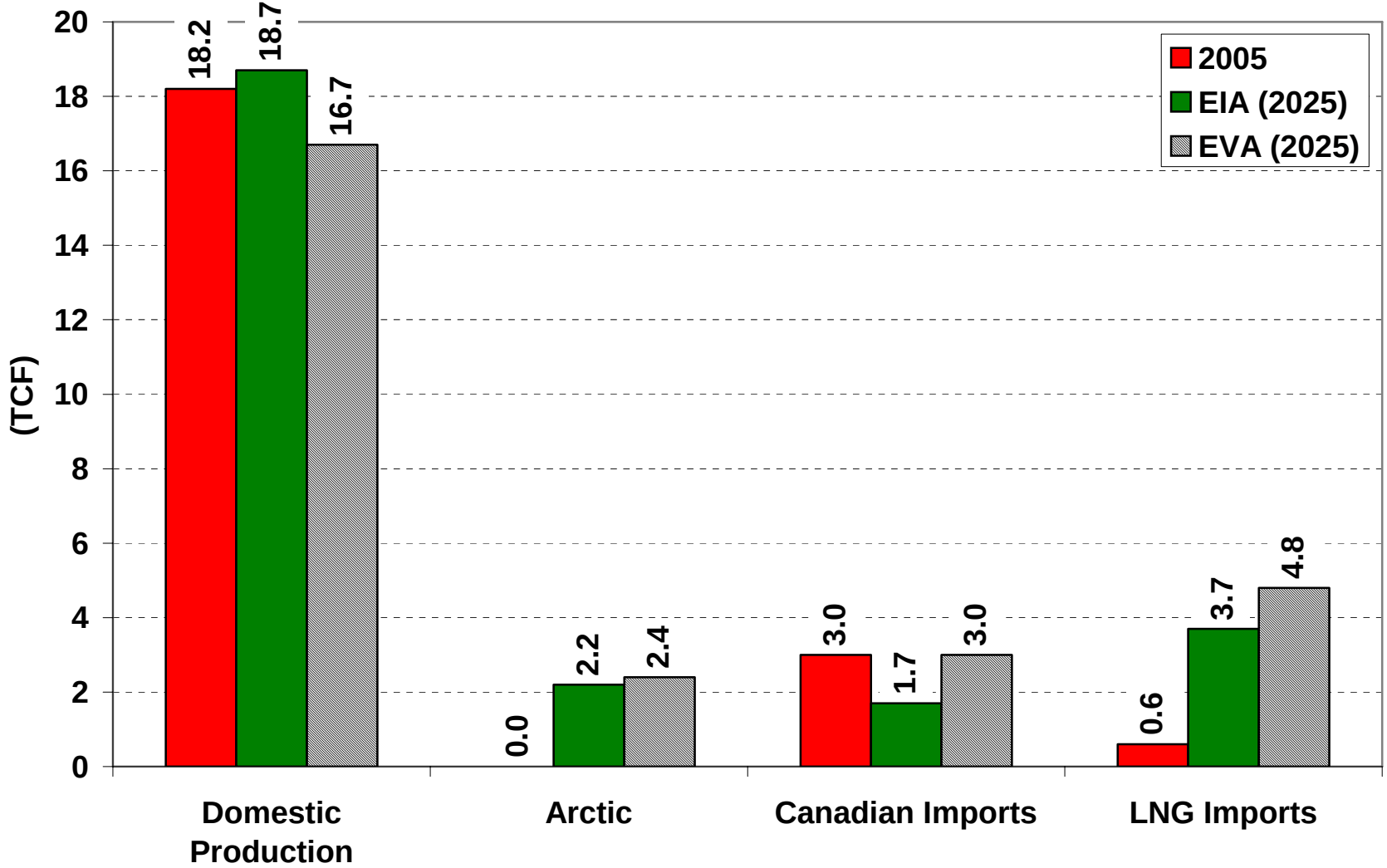


EIA= 5,063 GW



EVA= 5,548 GW

Natural Gas Supply



Natural Gas Supply

Key Differences

- **Domestic Production (2.0 TCF):** For years EIA has been more optimistic on domestic production than EVA. Also, EVA's view is that the hyper-inflation in drilling costs will dampen long-term production, but this is debatable

- **Canadian Imports (1.37 TCF):** EVA is likely more optimistic on the potential for offshore British Columbia and Nova Scotia. Could be a timing difference, as EVA projects a sharp decline in Canadian imports in the next five-year period

- **Arctic (0.2 TCF):** Assumptions are similar

- **LNG (1.14 TCF):** EVA is more bullish; relates to the amount of domestic production

LNG: Highlights

Global Capacity

- **U.S. regasification capacity** will be over built and could exceed 20 BCFD
- **European regasification capacity** likely will be over built, but specifics vary by country
- **Asian regasification capacity** likely will match supply requirements with terminals continuing to operate at about historical capacity factors
  - ➤ Expansion in India and China has been downsized.
  - ➤ Indonesia is a wild card.
- **Liquefaction capacity** likely will increase dramatically (i.e., from 14 BCFD prior to 2000 to 43 BCFD by 2010 and possibly 65 BCFD by 2015)

Spot Market

- Currently very small (i.e., 2.5 BCFD in 2005), but likely will increase in size over the decade (i.e., potentially 12.5 BCFD by 2012)

New North American Regasification Terminals

Development Of New Terminals Still In A Relatively Dynamic State

- **Likely Projects:** **17** out of 100 proposed new terminals and expansions likely to be completed (i.e., 20.0 BCFD out of 91.9 BCFD)(1)
- **Possible Projects:** Another 13 proposed projects (17.4 BCFD) still have the potential to be completed
  - ➤ However, their status is difficult to predict and, in one case, depends upon a future Supreme Court decision.

Status Of New U.S. LNG Terminals

	Projects to Track Closely	Other Projects	Cancelled
Projects	17	48	35
Capacity (BCFD)	20.0	46.1	25.8

	Operating Or Under Construction	Potentially Under Construction In 2007	Have a Permit	Others
Projects	10	1	4	2
Capacity (BCFD)	13.1	0.4	4.0	2.5

	Possible Projects	Announced Projects that are Still Active	Projects Without Activity
Projects	13	21	14
Capacity (BCFD)	17.4	16.1	12.6

(1) The 100 proposed projects include 10 project expansions. The 'Likely' projects are at 14 sites.

U.S. Regasification: Plausible Scenarios For 2012

Three Plausible Scenarios

- **Key Conclusion:** U.S. regasification will be over built
  - ➤ Excess capacity a critical requirement for a robust spot market.
- **Key Observation:** Major project shakeout likely to occur in 2006/2007
  - ➤ First movers secure available LNG supplies, market share and key infrastructure (e.g., pipeline and storage capacity).
  - ➤ Recent series of proposed expansions may be a signal to second movers.*

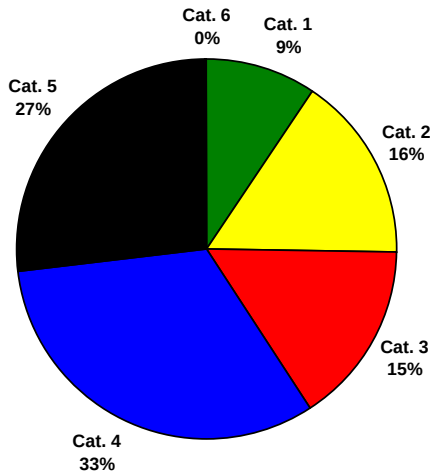
	2012 Regasification Capacity (BCFD)			
	East Coast	Gulf Region	West Coast	Total
I. Conservative Case				
U.S. - Existing	4.2	1.8	-	6.0
U.S. - Greenfield	-	14.1	-	14.1
Neighboring Countries, Net(1)	0.8	0.1	1.8	2.8
Total	**5.0**	**16.0**	**1.8**	**22.8**
II. Base Case				
U.S. - Existing	4.2	1.8	-	6.0
U.S. - Greenfield	0.8	15.6	0.8	17.2
Neighboring Countries, Net(1)	0.8	0.1	4.1	5.0
Total	**5.8**	**17.5**	**4.9**	**26.4**
III. Opimisitic Case				
U.S. - Existing	4.2	1.8	-	6.0
U.S. - Greenfield	2.8	19.2	0.8	22.8
Neighboring Countries, Net(1)	0.8	0.1	4.1	5.0
Total	**7.8**	**21.1**	**4.9**	**33.8**

(1) Net capacity available to serve the U.S. market.

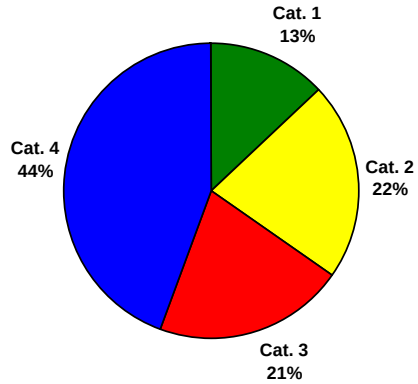
* **Five expansions totaling 6 BCFD.**

2012 Foreign Regasification Projects: Europe

Proposed Regasification Terminals in Europe Through 2012

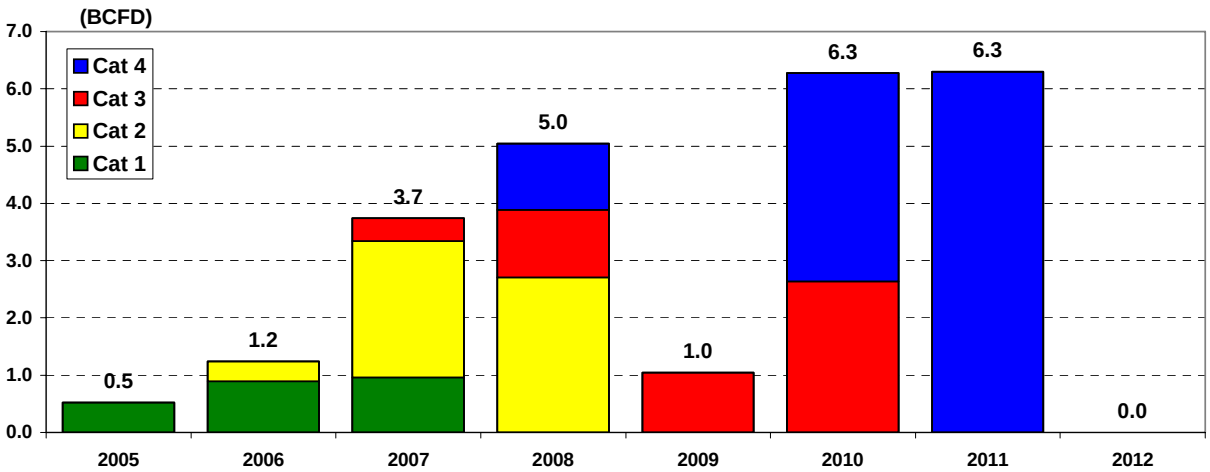


34.2 BCFD



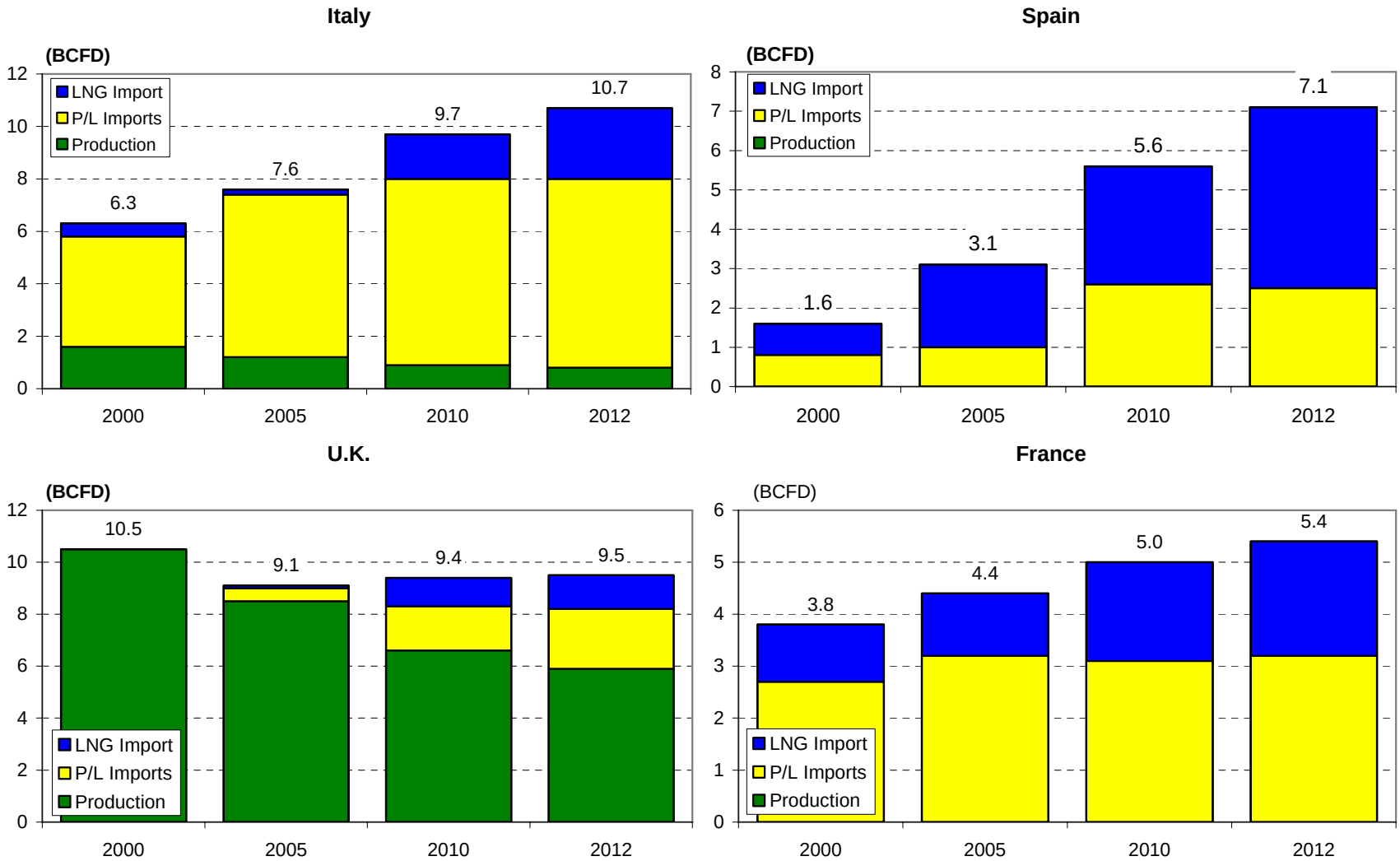
25.0 BCFD

Estimated Completion Dates



Note: Cat 1 (built); Cat 2 (under construction); Cat 3 (has permit); Cat 4 (in process); Cat 5 (unlikely); Cat 6 (cancelled).

Europe: Supply And Demand Analysis For Big Four



Notes: (1) U.K. was net gas exporting country until 2004. (2) Total of production and imports equals demand.

Europe: Country Specific Assessment For 2012

About 81% of New Capacity in Four Countries: Italy, U.K., Spain and France

- There are sharp contrasts in the outlook for LNG imports within each of these countries (i.e., see table below)
  - ➤ General conclusion is that Italy, U.K. and France will be over built, while Spain's terminals will operate at high capacity factors.
- Remaining 19% of capacity are single terminals in seven countries

Assessment of European LNG Requirements on Country Specific Basis

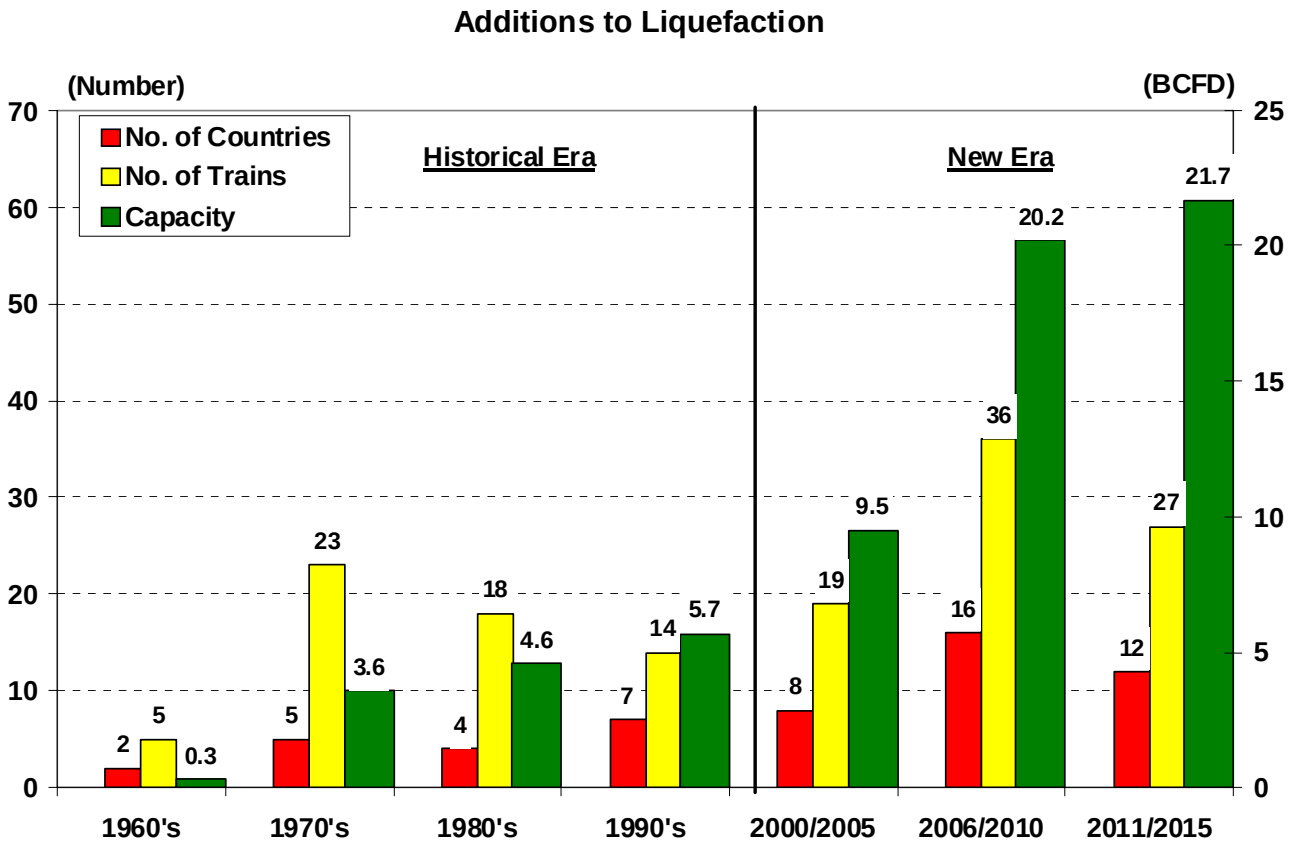
	BCFD						
Country	Increase In Demand	Decline In Domestic Production	Increased Import Requirements	Additional Imports From New Pipelines	Required Increase In LNG Imports	Additional Regasification Capacity Being Built	Projected Capacity Factor
	(1)	(2)	(3 = 1 + 2)	(4)	(5 = 4 - 3)	(6)	(7 = 5 / 6)
Italy	3.0	0.3	3.4	0.9	2.5	6.3	40%
U.K.	0.3	3.9	4.2	2.3 (1)	1.9 (2)	6.2	31%
Spain	4.0	-	4.0	1.6	2.4	2.9	83%
France	1.0	-	1.0	-	1.0	3.6	28%
Other Europe	N/A	N/A	N/A	N/A	3.0	3.3 (3)	90%
Total	-	-	-	-	**10.8**	**22.3** (3)	**48%**

(1) Could be higher.
(2) Assumes LNG imports for diversification of supply.
(3) Figures do not add due to rounding.

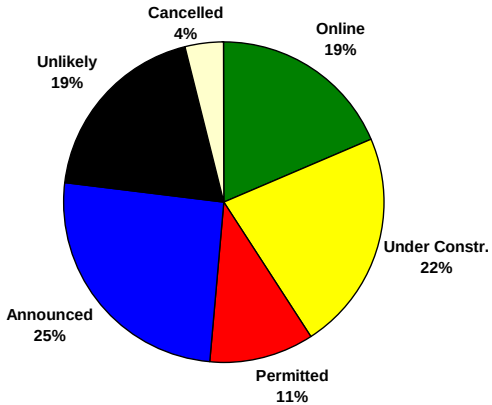
New Liquefaction Capacity

Liquefaction Capacity Added This Decade Will Exceed The Capacity Added Over the Last Forty Years

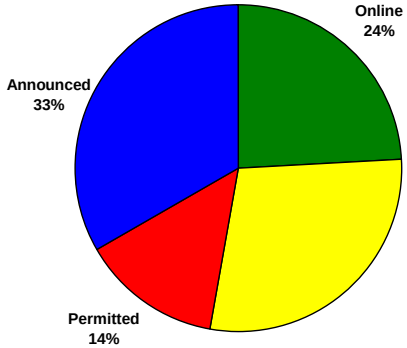
- By 2010 world liquefaction capacity will increase by more than three fold
- By 2012 world liquefaction capacity likely will increase more than four fold



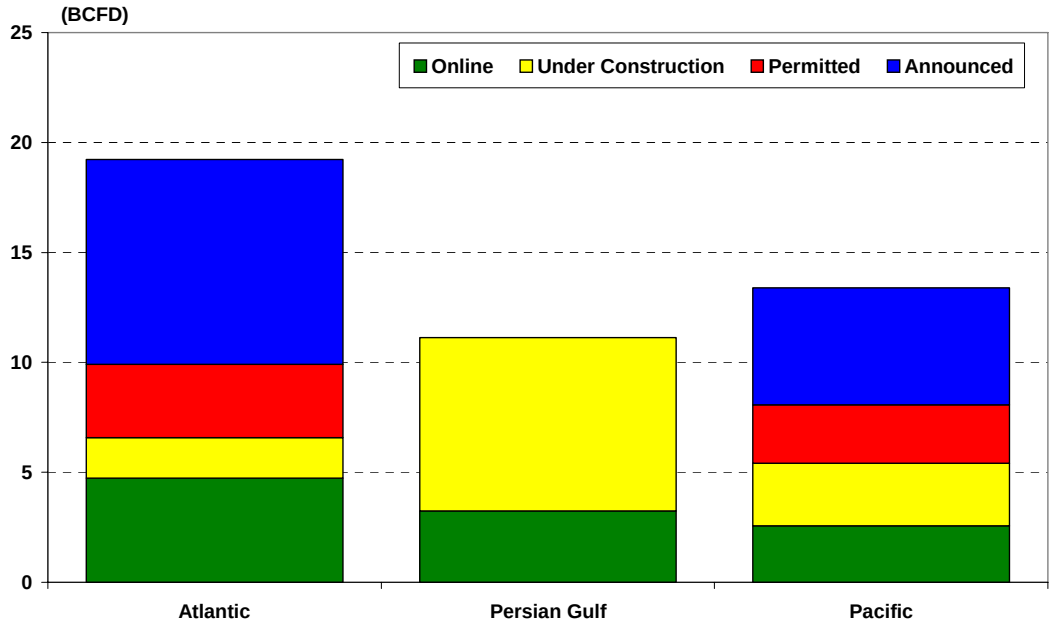
New Liquefaction Facilities For 2012



56.8 BCFD

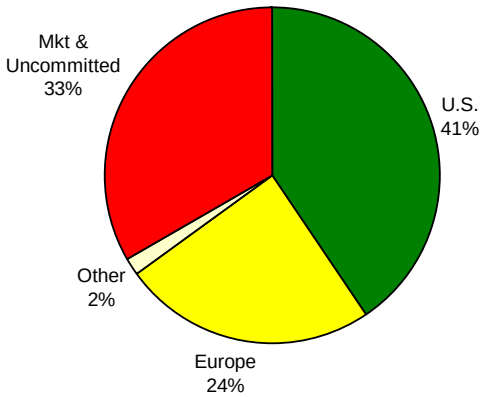


43.7 BCFD

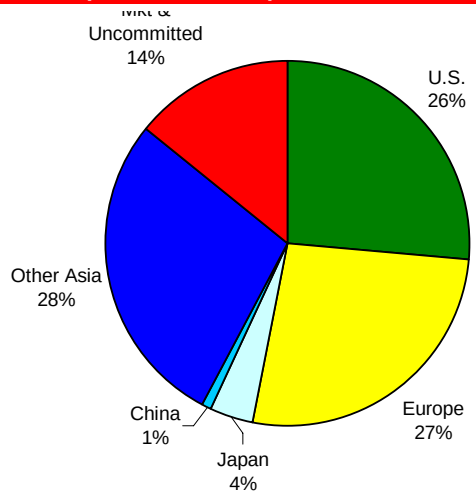


Supply Commitments (2000-2012)

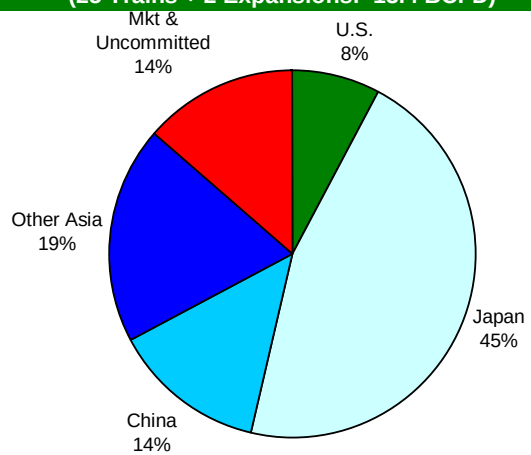
Atlantic Basin
(32 Trains + 3 Expansion: 19.2 BCFD)



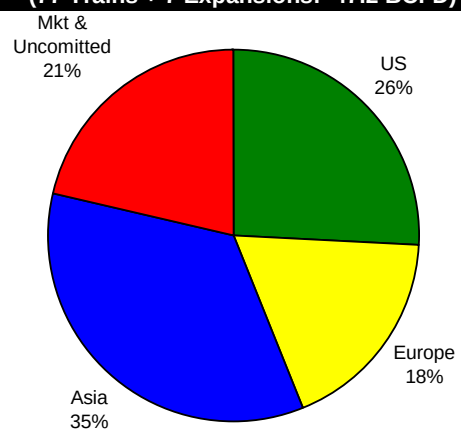
Persian Gulf
(20 Trains + 2 Expansions: 14.6 BCFD)



Pacific Basin
(25 Trains + 2 Expansions: 13.4 BCFD)



Grand Total
(77 Trains + 7 Expansions: 47.2 BCFD)



Note: Uncommitted includes volumes not earmarked to a specific terminal but controlled by a makreting entity.

Note: Potential 2012 LNG imports are 12.3 + 3.3 = 15.6 BCFD.

New Liquefaction Capacity

Excluded From Prior Analysis Are a Series of Liquefaction Projects Because:

- Data on supply commitments not available
- Project is still in its early stages of development

Year	No. of Trains	Capacity (MMCFD)
2010	3	1,854
2011 or later	5	5,877
2012 or later	7	5,343
2013 or later	3	2,322
2014 or later	2	1,294
2015 or later	1	534
Total	**21**	**17,224**

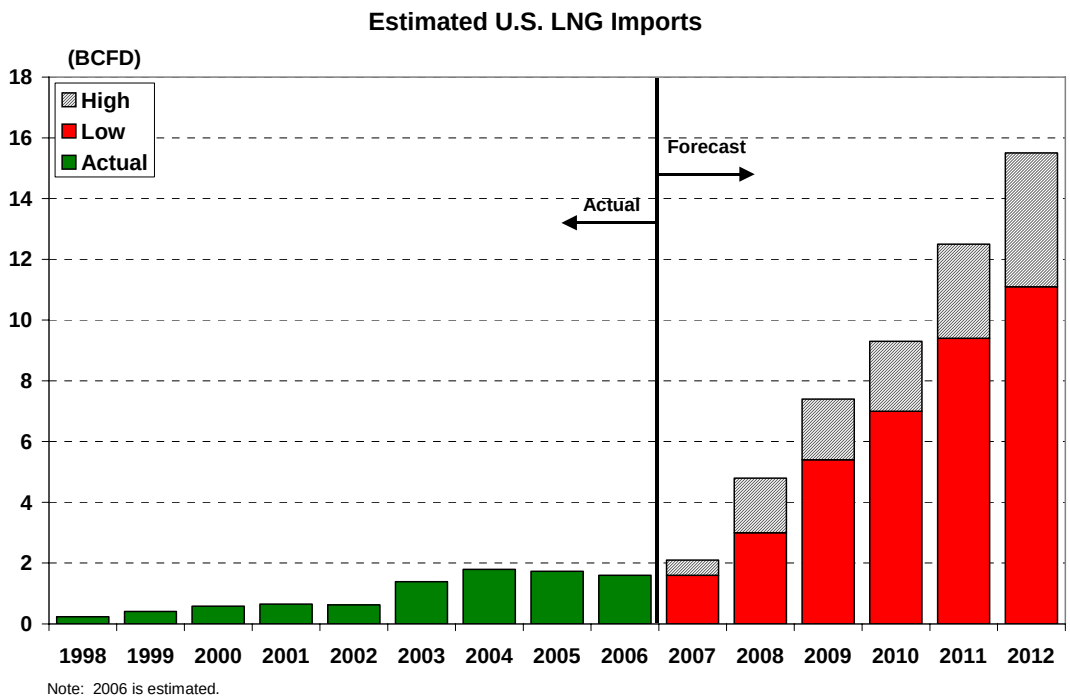
U.S. LNG Imports

Near-Term

- Overly dependent on very competitive spot market
- As a result, likely to be rather volatile
- Watch out for upset conditions

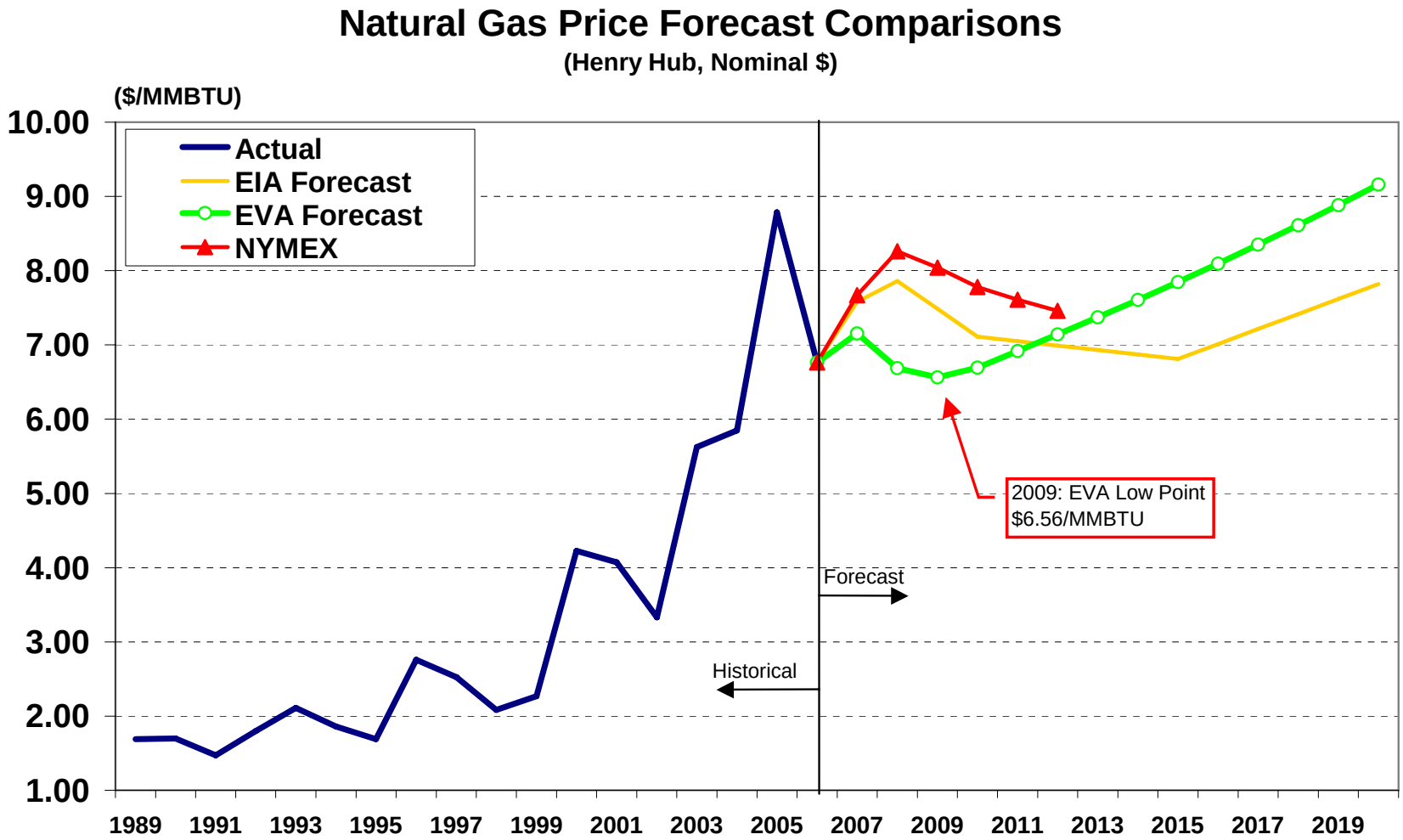
Long-Term

- Likely will reach 7.5 BCFD by 2010 and could approach 15 BCFD in 2012



Note: 2006 is estimated.

Natural Gas Prices



Data for January 8, 2007.
Source: NYMEX, EIA and EVA, Inc.

Summary: Key Tension Points

Area	Key Tenion Point
I. Demand	
A. Residential	Degree to which behavioral conservation is permanent.
B. Commercial	Conservation versus economic growth.
C. Industrial	Likelihood of a rebound in demand.
D. Electric	Future CO_2 regulations and electricity demand growth rates.
II. Supply	
A. Domestic Production	Differing views. Impact of hyper-inflation for drilling costs.
B. Canada	Viability of newer frontiers.
C. LNG	Outlook for global growth of industry.
III. Prices	Availability of domestic supply and industry cost structure.