New York State Energy Planning Board

U.S. Natural Gas Production: A Resource Assessment and NYS Market Impact

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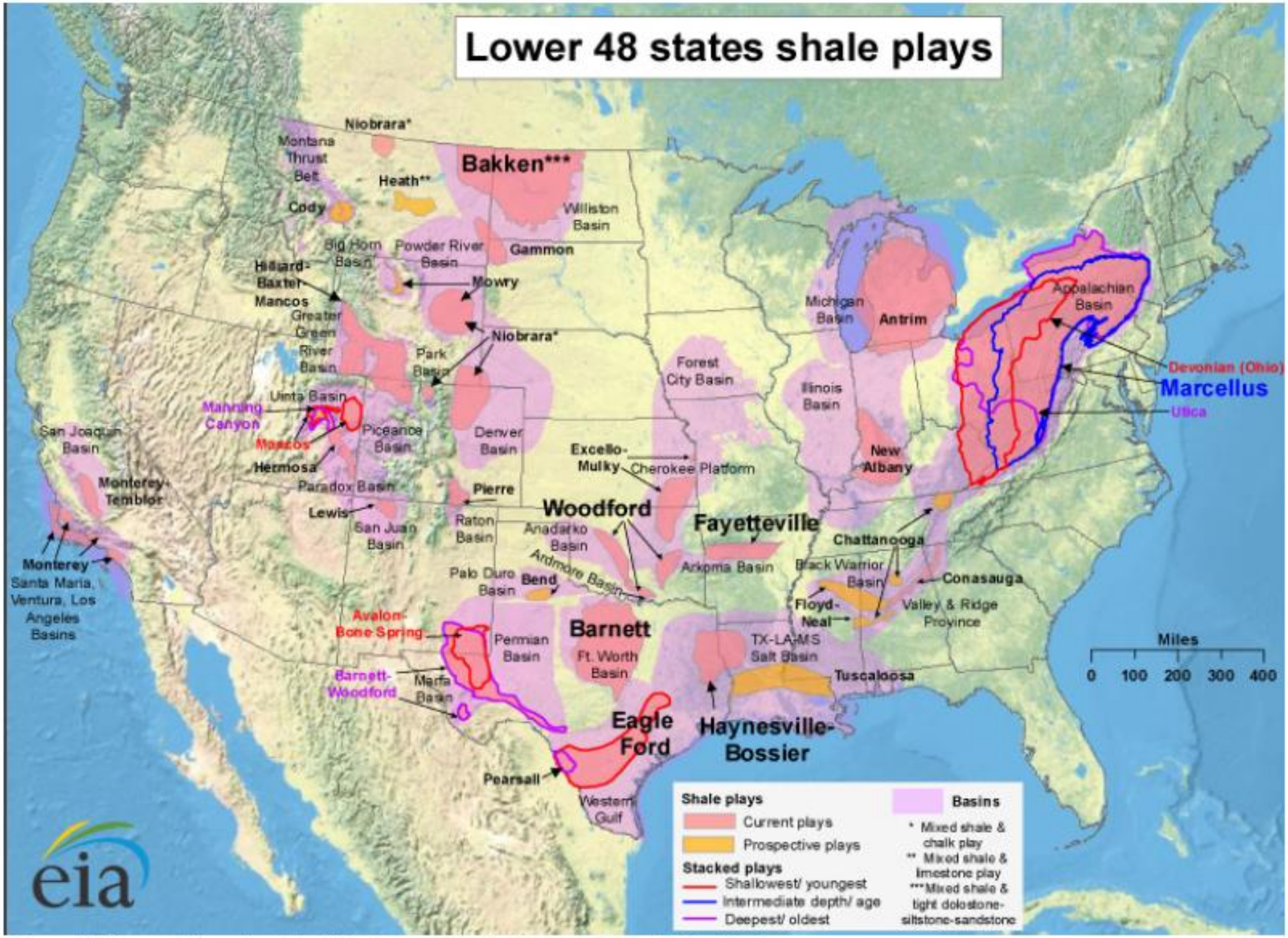
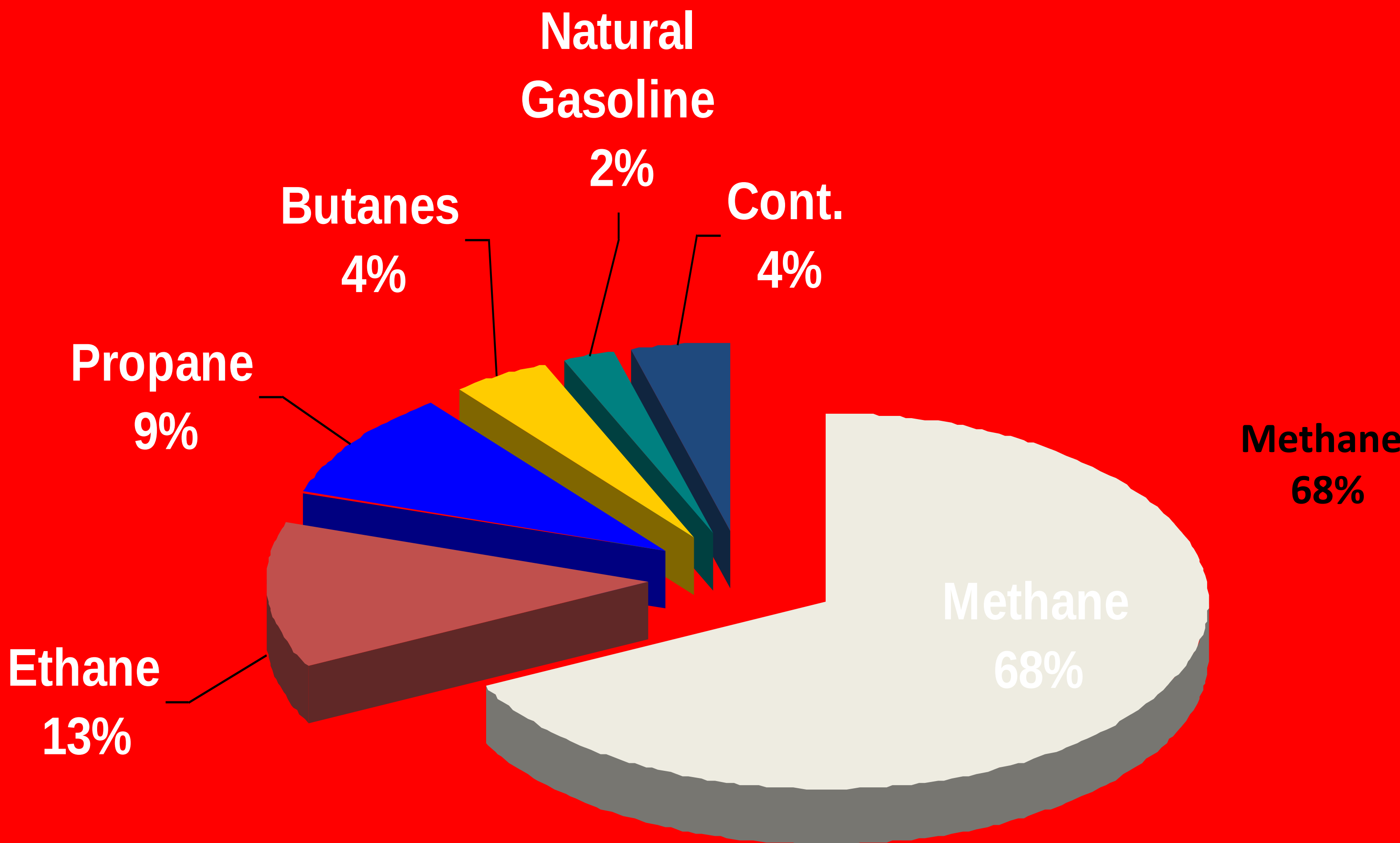
Presentation Overview

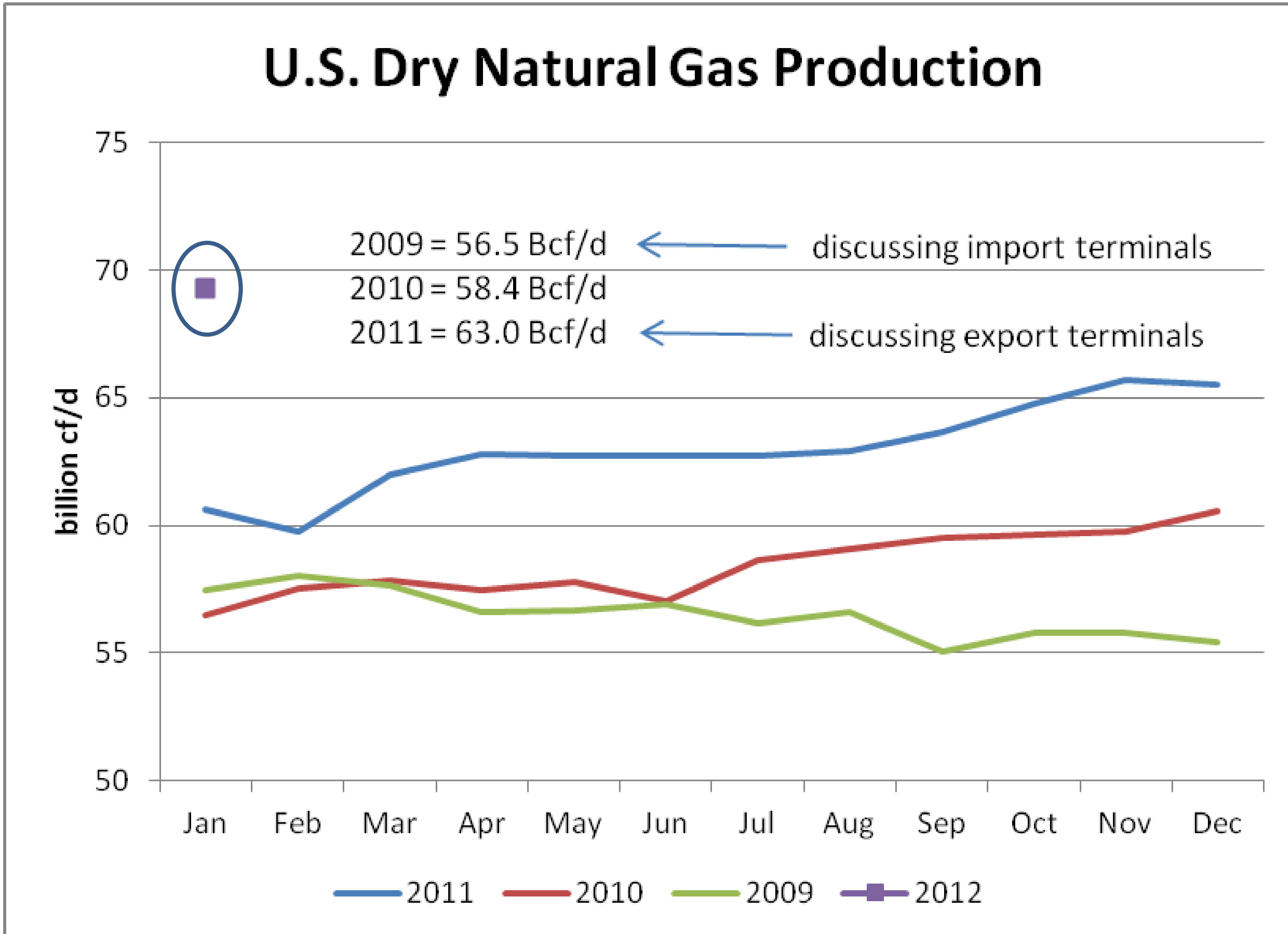
- Natural Gas Resource Basins
- Dry Gas & Natural Gas Liquids (NGLs)
- Prices
  - EIA Average Annual Outlook
  - Henry Hub Spot Price
  - NY Citygate Prices
  - Winter Demand Price Impacts
- Northeast Pipeline Expansion Projects



Source U.S. Energy Information Administration based on data from various published studies.
Upeate: May 9, 2011

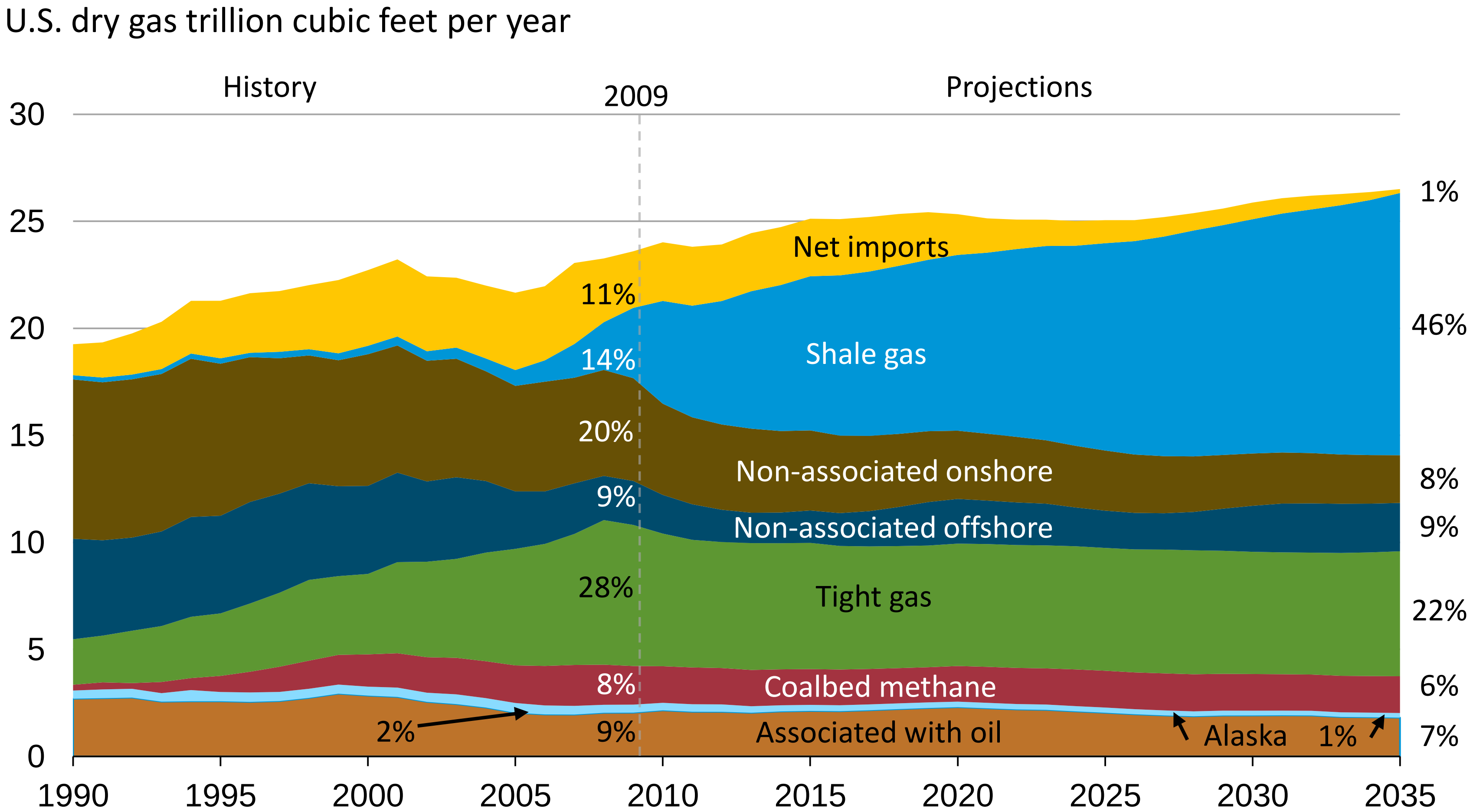


TYPICAL UNPROCESSED GAS

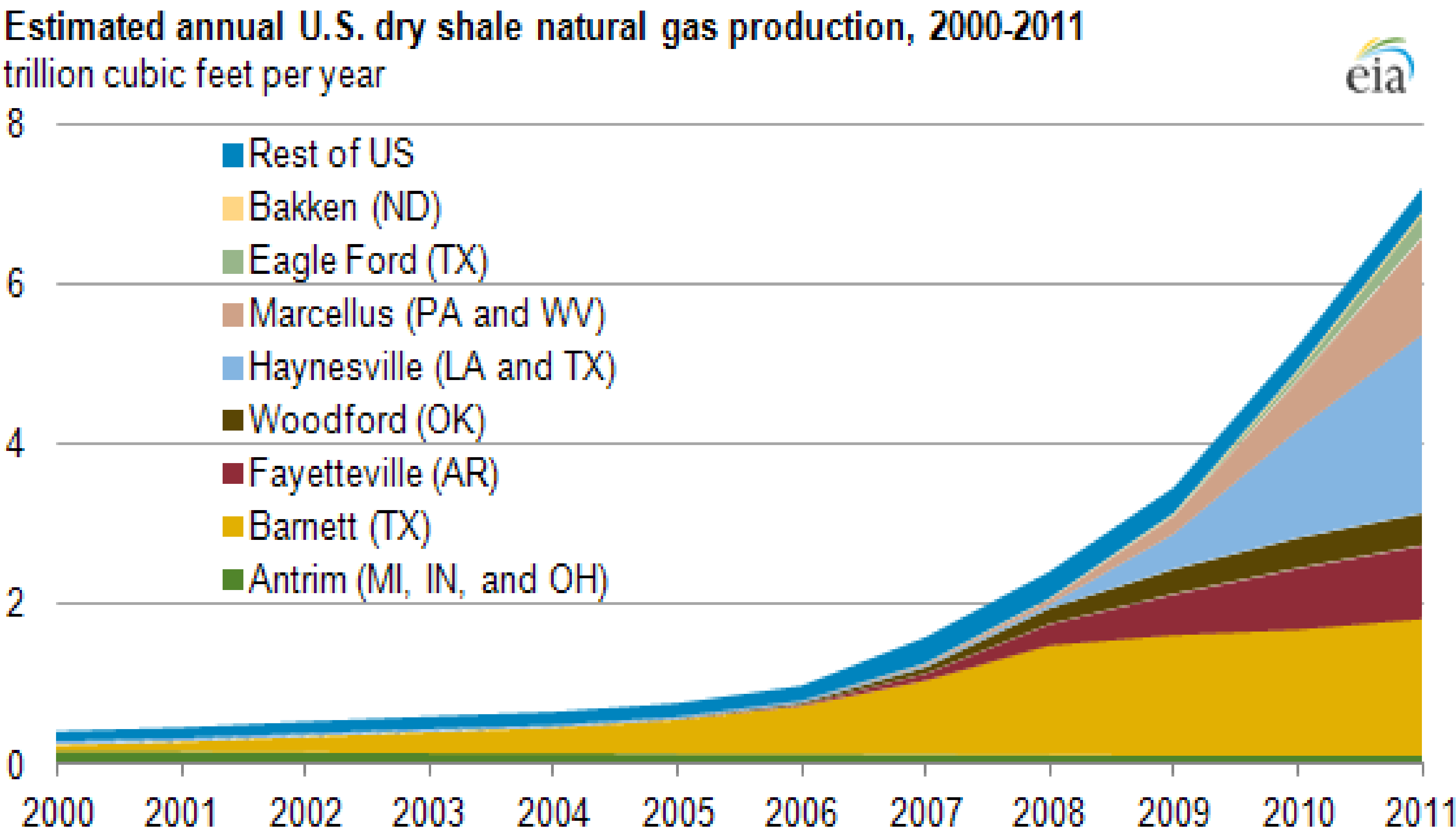


U.S. Dry Natural Gas Production
75
70
65
60
55
50
billion cf/d
2009 = 56.5 Bcf/d
2010 = 58.4 Bcf/d
2011 = 63.0 Bcf/d
discussing import terminals
discussing export terminals
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2011
2010
2009
2012

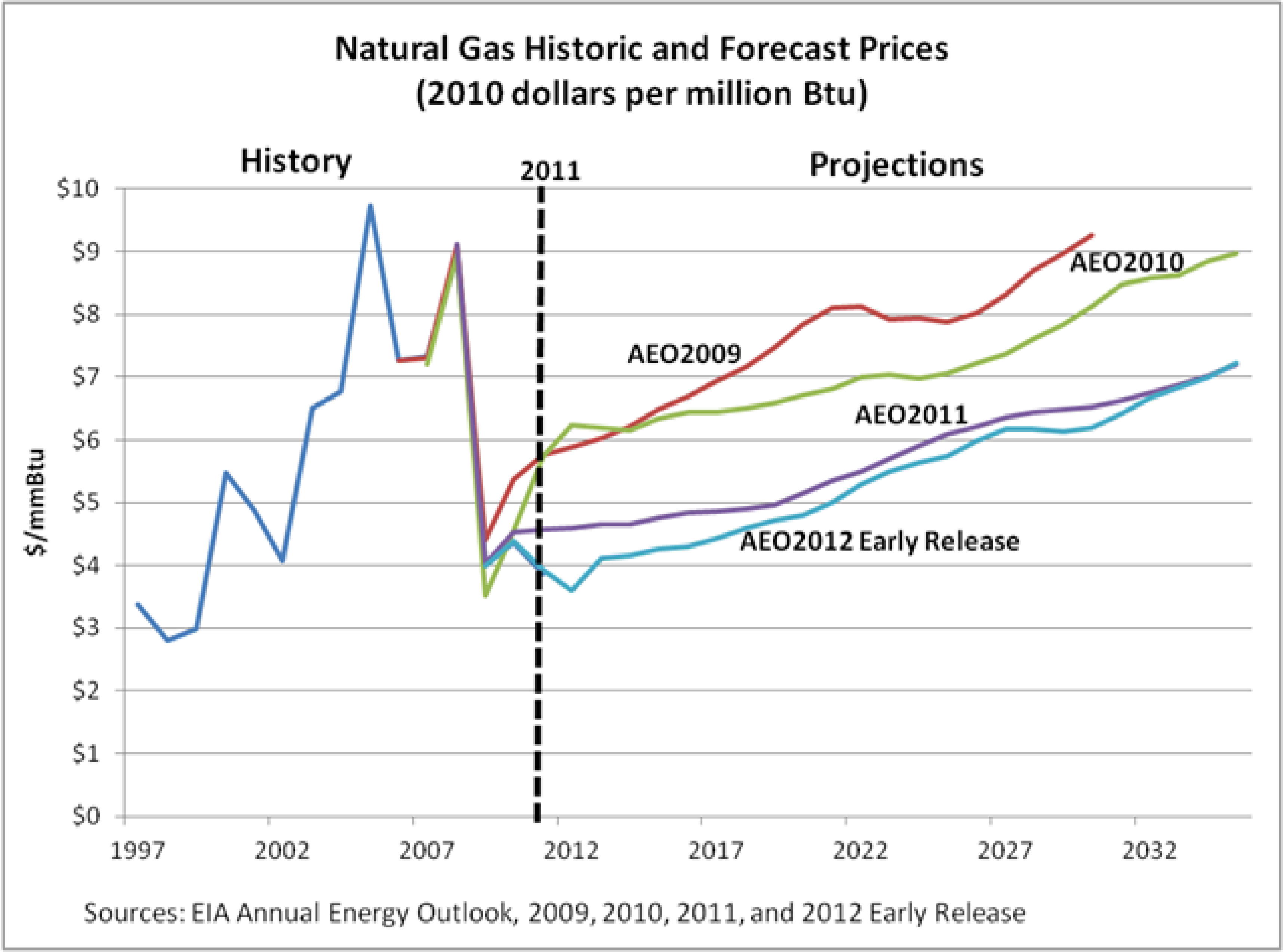
Shale gas offsets declines in other U.S. supply to meet consumption growth and lower import needs



Source: EIA, Annual Energy Outlook 2011



Estimated annual U.S. dry shale natural gas production, 2000-2011
trillion cubic feet per year
8
6
4
2
0
Rest of US
Bakken (ND)
Eagle Ford (TX)
Marcellus (PA and WV)
Haynesville (LA and TX)
Woodford (OK)
Fayetteville (AR)
Barnett (TX)
Antrim (MI, IN, and OH)
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
eia


Natural Gas Historic and Forecast Prices
(2010 dollars per million Btu)
History
2011
Projections
$10
$9
$8
$7
$6
$5
$4
$3
$2
$1
$0
$/mmBtu
AEO2009
AEO2010
AEO2011
AEO2012 Early Release
1997
2002
2007
2012
2017
2022
2027
2032
Sources: EIA Annual Energy Outlook, 2009, 2010, 2011, and 2012 Early Release

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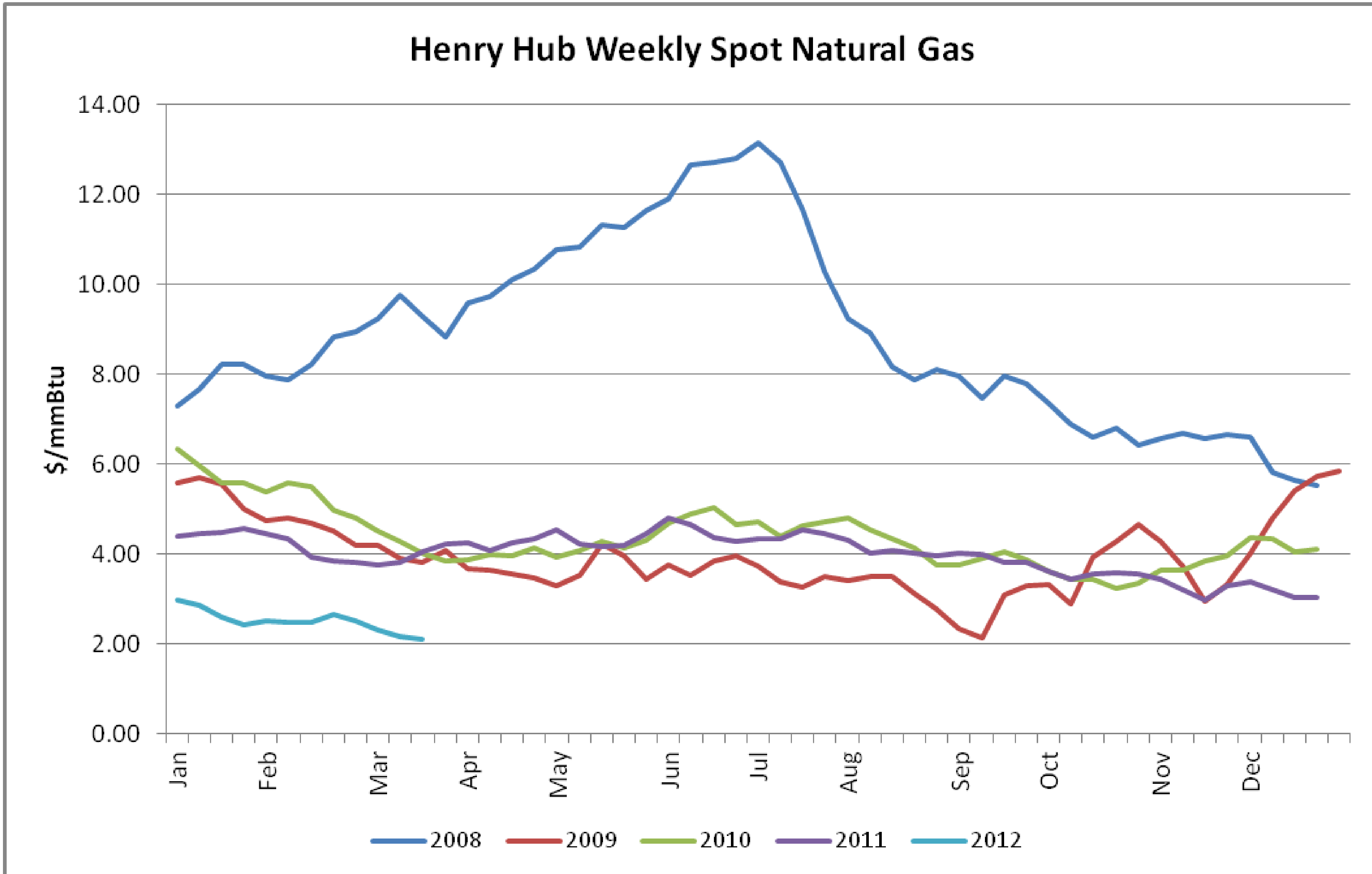
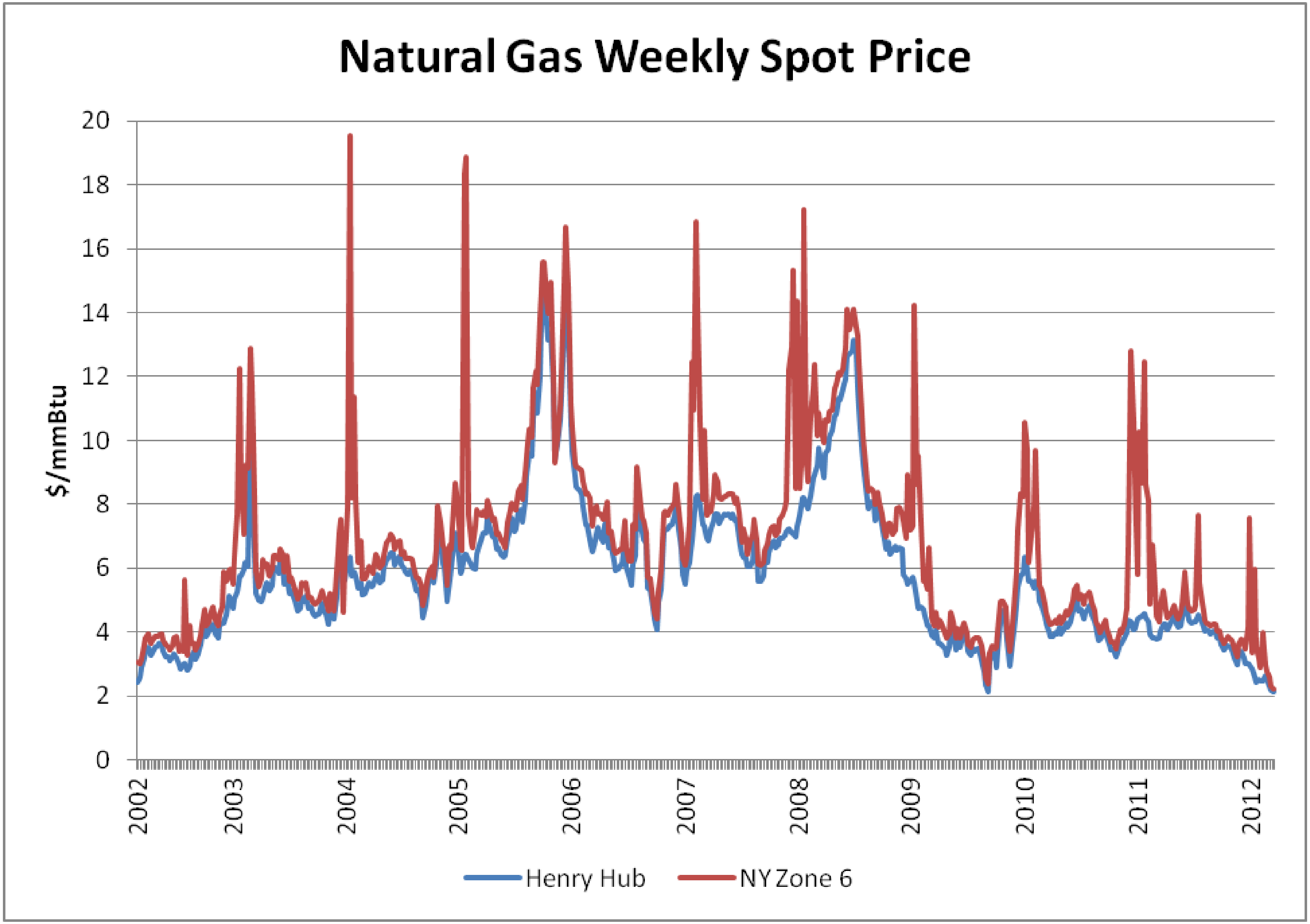
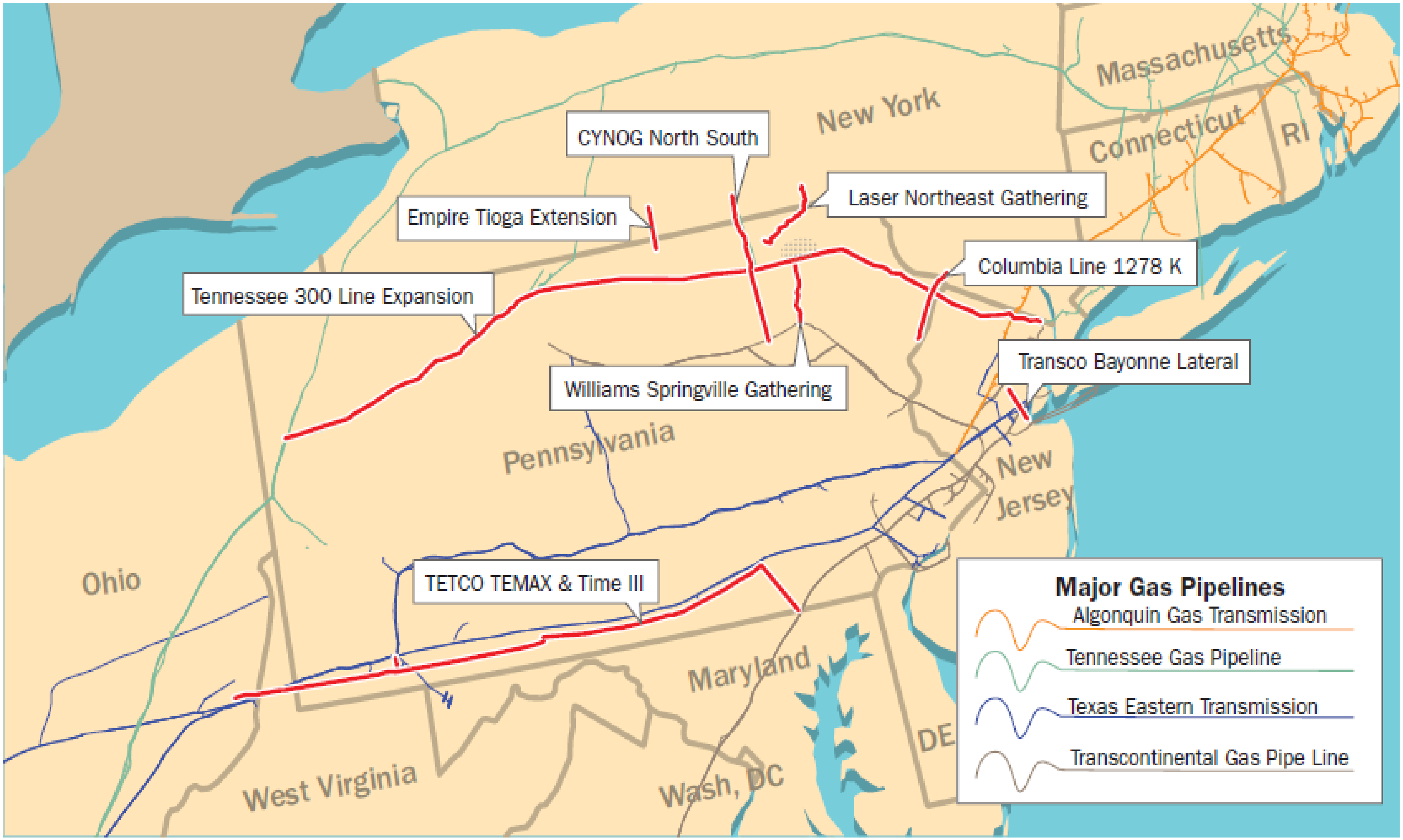

Henry Hub Weekly Spot Natural Gas
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
$/mmBtu
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2008
2009
2010
2011
2012


Natural Gas Weekly Spot Price
$/mmBtu
0
2
4
6
8
10
12
14
16
18
20
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Henry Hub
NY Zone 6

Northeast capacity expansions



Source: Platts Cartography

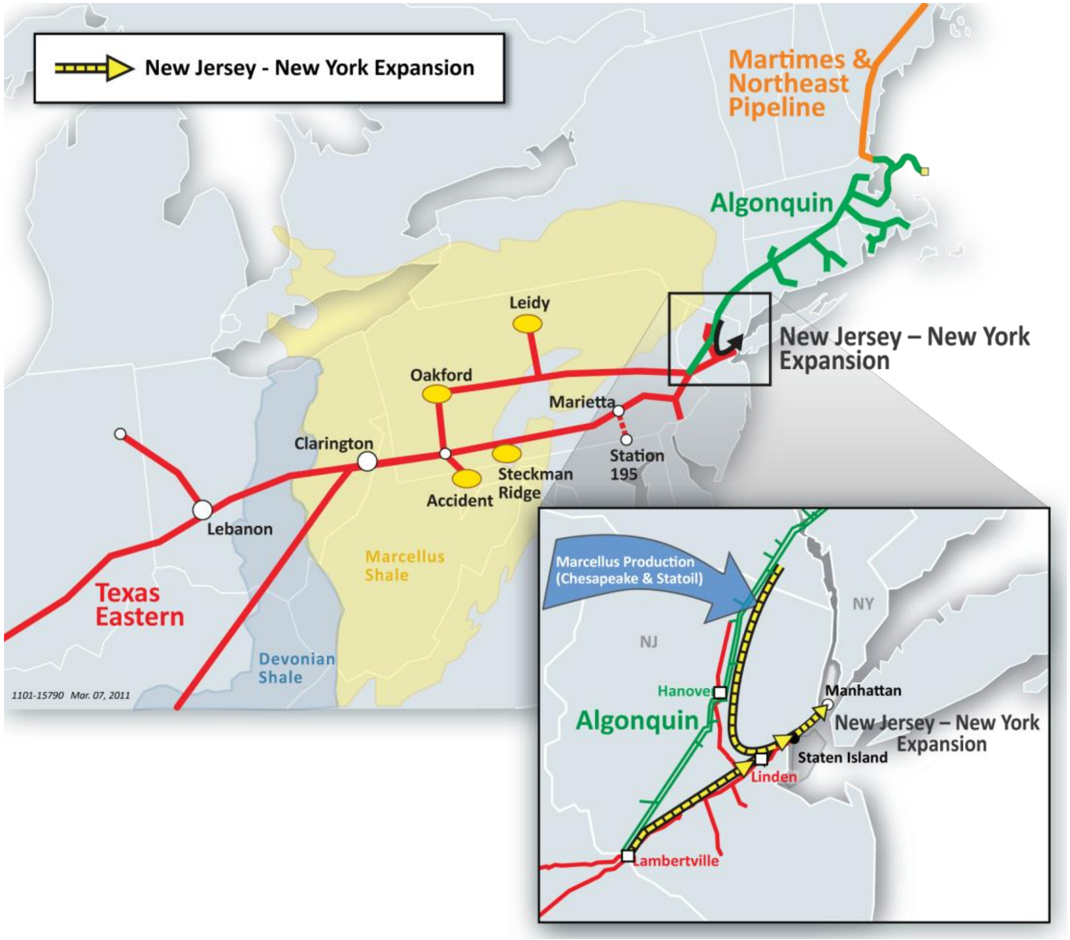
New Jersey – New York Expansion Project

Purpose:
- Extends Texas Eastern reach farther into New Jersey and into New York City for the first time

Project Scope:
- 800 MMcf/d expansion connecting Northeastern PA Marcellus supplies with a new delivery point in Manhattan
- CapEx: ~$1.2 billion

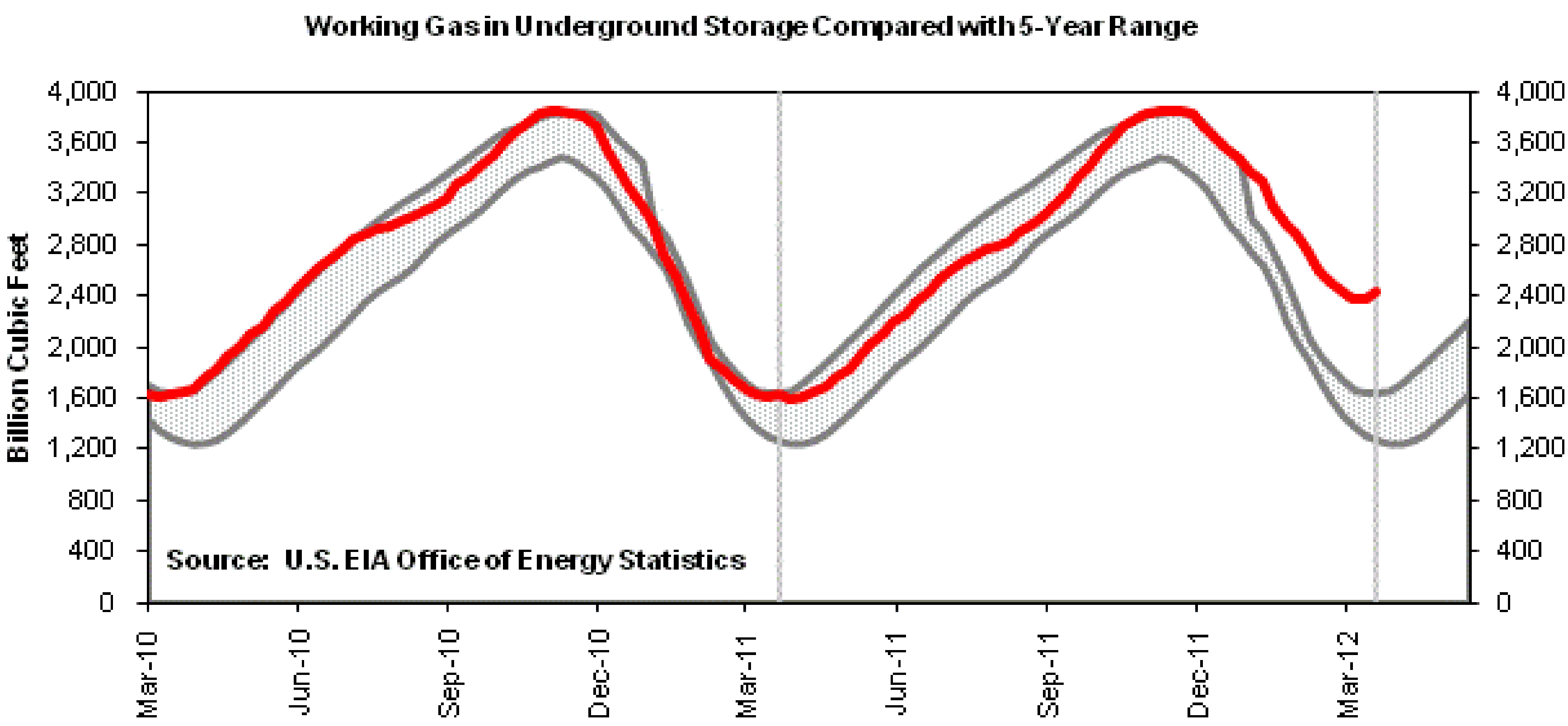
Customers:
- Chesapeake Energy (20 years)
- Consolidated Edison (15 years)
- Statoil Natural Gas (20 years)

Project Status:
- Filed FERC application Dec 2010
- In-Service: 2H13



Facilities:
- 15.9 miles of new 30” pipe extending from Staten Island to Manhattan, NY
- Replacement of approximately 5 miles of pipe with 42” pipe on Texas Eastern

Natural Gas Storage Volumes



Questions and Discussion