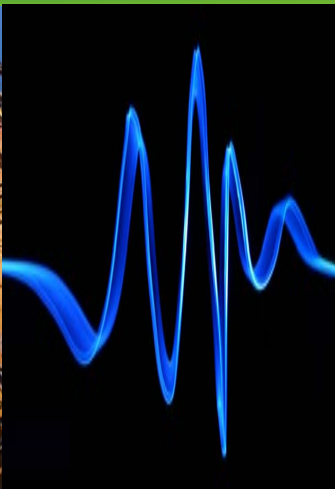


FERC UPDATE

All Things Natural Gas

NARUC Summer Committee Meeting



*John Carlson, Deputy Director
Division of Tariffs and Markets
Development West
Federal Energy Regulatory Commission
Portland, Oregon
July 20, 2008*

Policy Initiatives

- ➔ Capacity Release Rule
- ➔ Form 2 Reform
- ➔ ROE Policy Statement
- ➔ Fuel Recovery NOI

Capacity Release – Order No. 712

- ➔ Market-based pricing of short-term capacity releases
 - ⇒ No MBR for long-term releases
 - ⇒ No MBR for sales of primary capacity
- ➔ Facilitates Asset Management Arrangements
- ➔ Clarifies rules on releases of Storage Capacity
- ➔ Waivers of rules for capacity releases in state unbundling programs
- ➔ No waiver of Shipper-Must-Have-Title

Form 2 Reform – Order No. 710

- ➔ Improves transparency
- ➔ Permits more effective oversight by FERC, pipeline customers, and the public
- ➔ Requires additional and more detailed information
 - ⇒ Disposition of shipper-supplied gas
 - ⇒ Affiliate transactions
 - ⇒ Incremental rate facilities
 - ⇒ Deferred Taxes
- ➔ Facilitates filing of claims under NGA section 5

ROE Policy Statement

- ➔ Master Limited Partnerships allowed in the calculation of Return on Equity
 - ⇒ No cap on the level of distributions
 - ⇒ Continue to use IBES for short-term growth projections
 - ⇒ Adopts APGA's proposal to adjust long-term growth to 50 % of long-term GDP
 - ⇒ Maintains current 2/3 -1/3 weighting of growth rates.

- ➔ Established paper hearings in the Kern River and Guadalupe cases, and settlement judge proceedings in remanded Petal and HIOS cases

Fuel Recovery NOI

➔ Current practice –

⇒ Stated rate

⇒ Tracker

⇒ Tracker with true-up

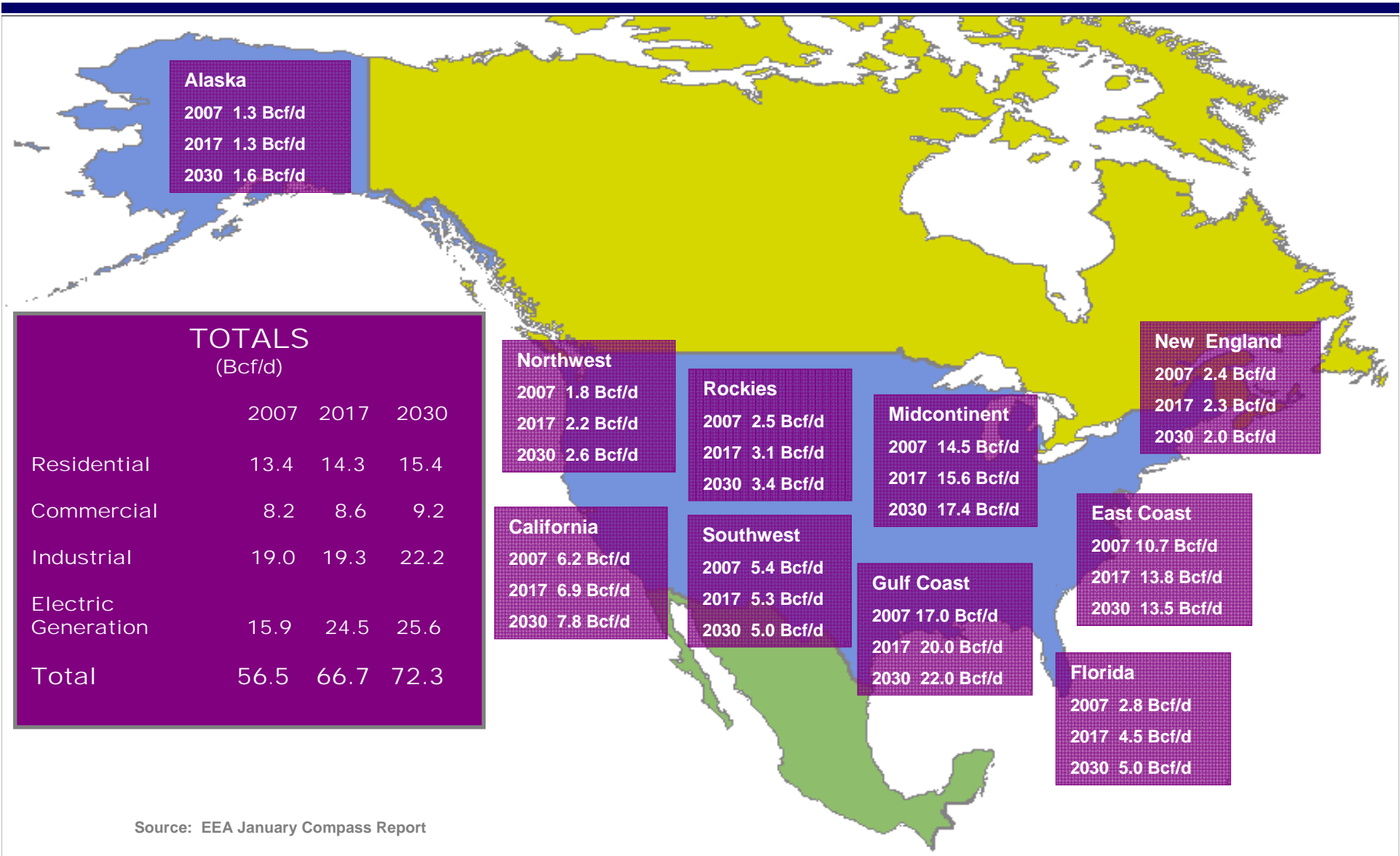
➔ Comments

⇒ Pipelines...Status Quo

⇒ Shippers & States...Trackers w/true-up
(Unless we agree to something else)

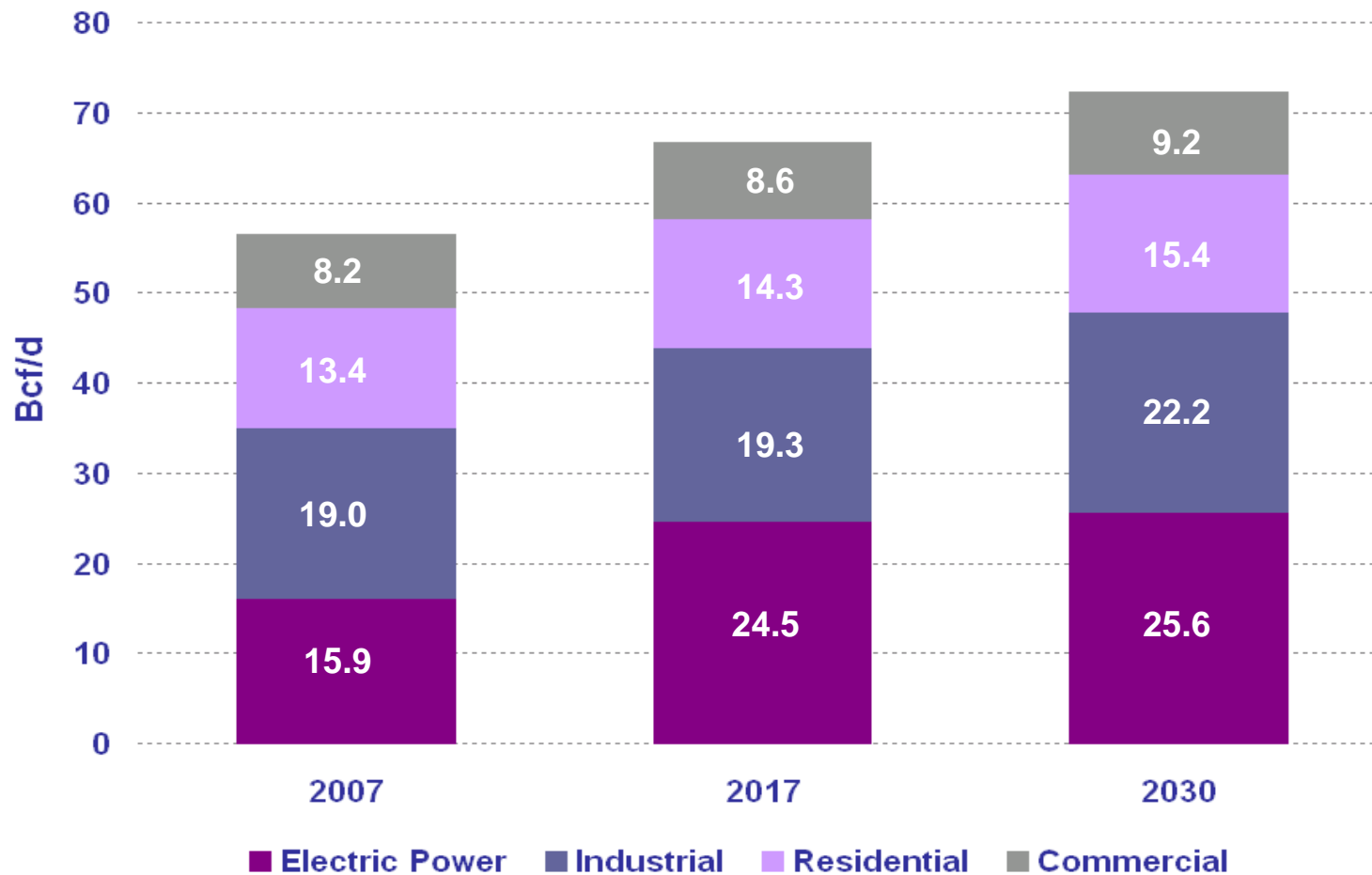
Next Steps

United States Demand Overview



Source: EEA January Compass Report

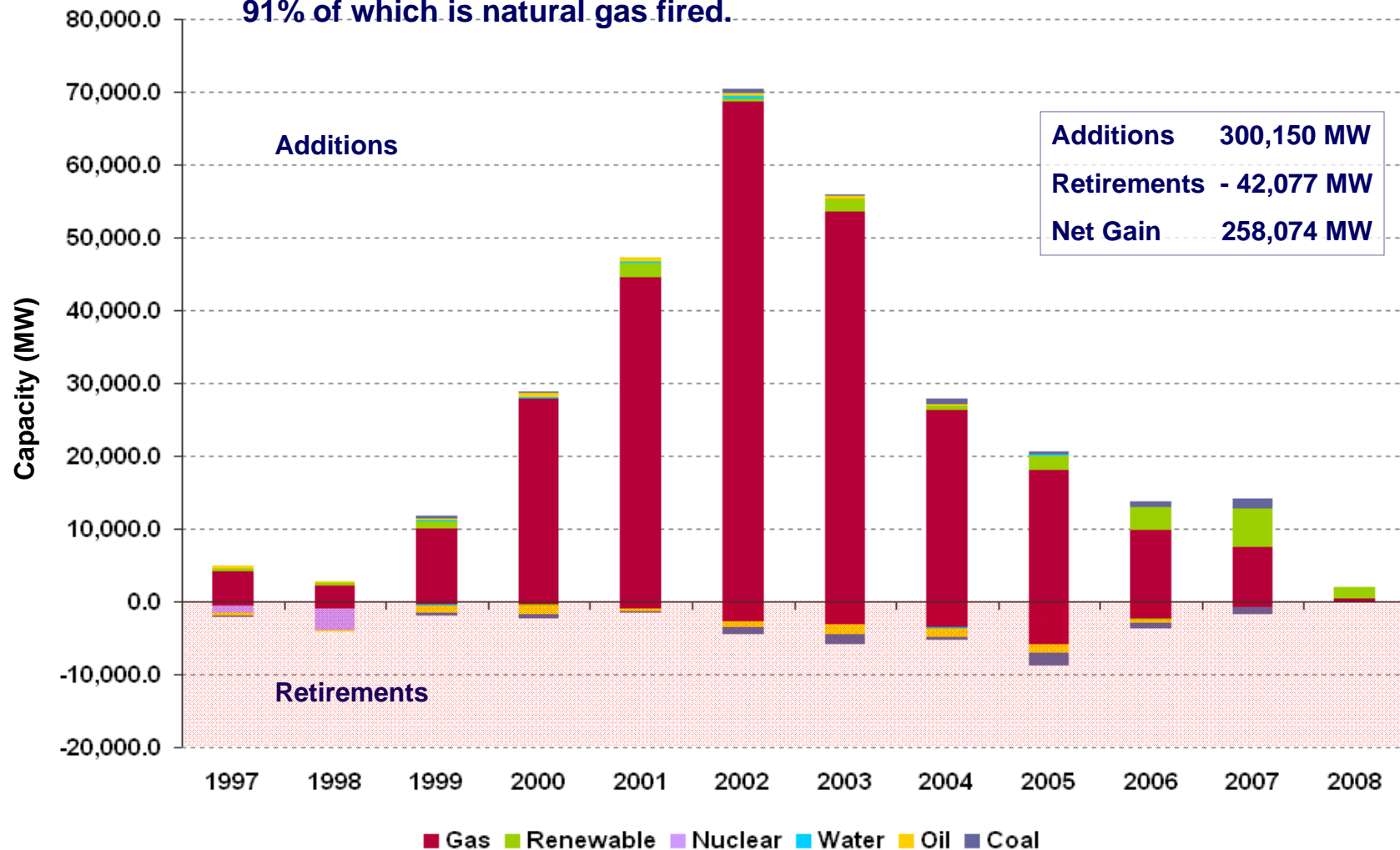
The largest increase in natural gas usage is projected to be the electric power sector



Source: EEA's Compass Report for January 2008

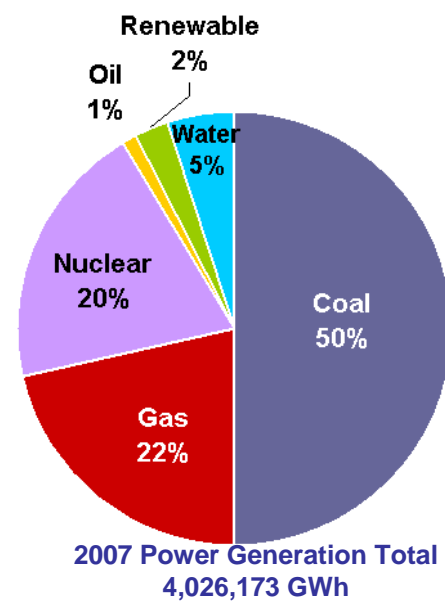
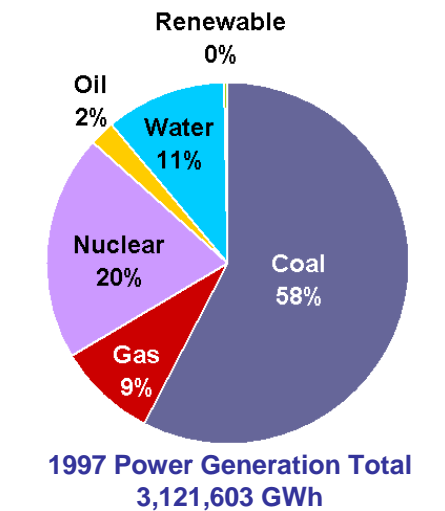
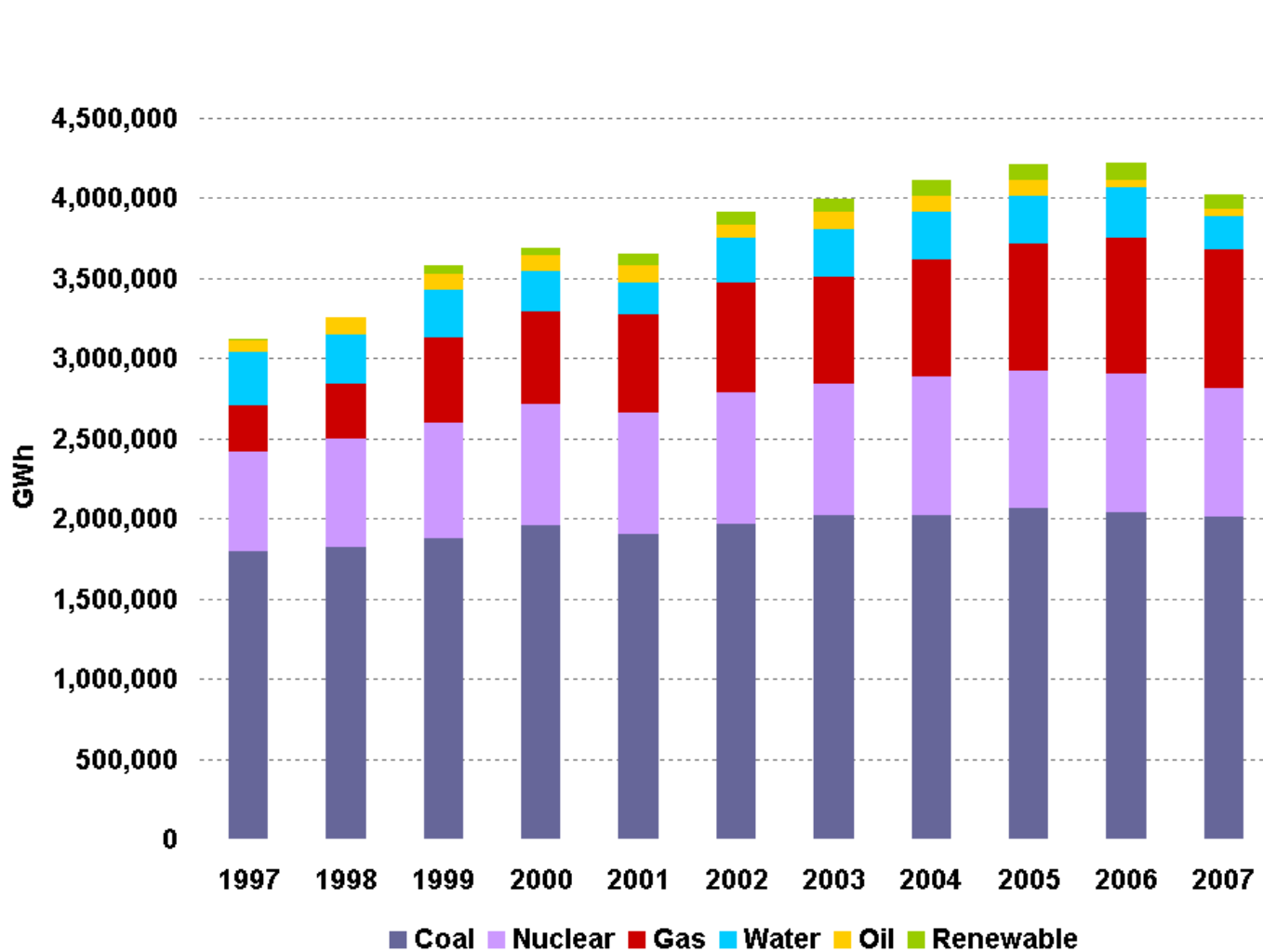
Gas-fired generation has dominated recent U.S. expansion of generation capacity

Over 300,150 MW of new generation capacity has come online since 1997;
91% of which is natural gas fired.



Source: Based on data from Ventyx Global Energy Decisions, Inc., Velocity Suite, April 2008.

Electric generation from gas fired plants is 22 percent of the total in 2007, increased from 9 percent in 1997.

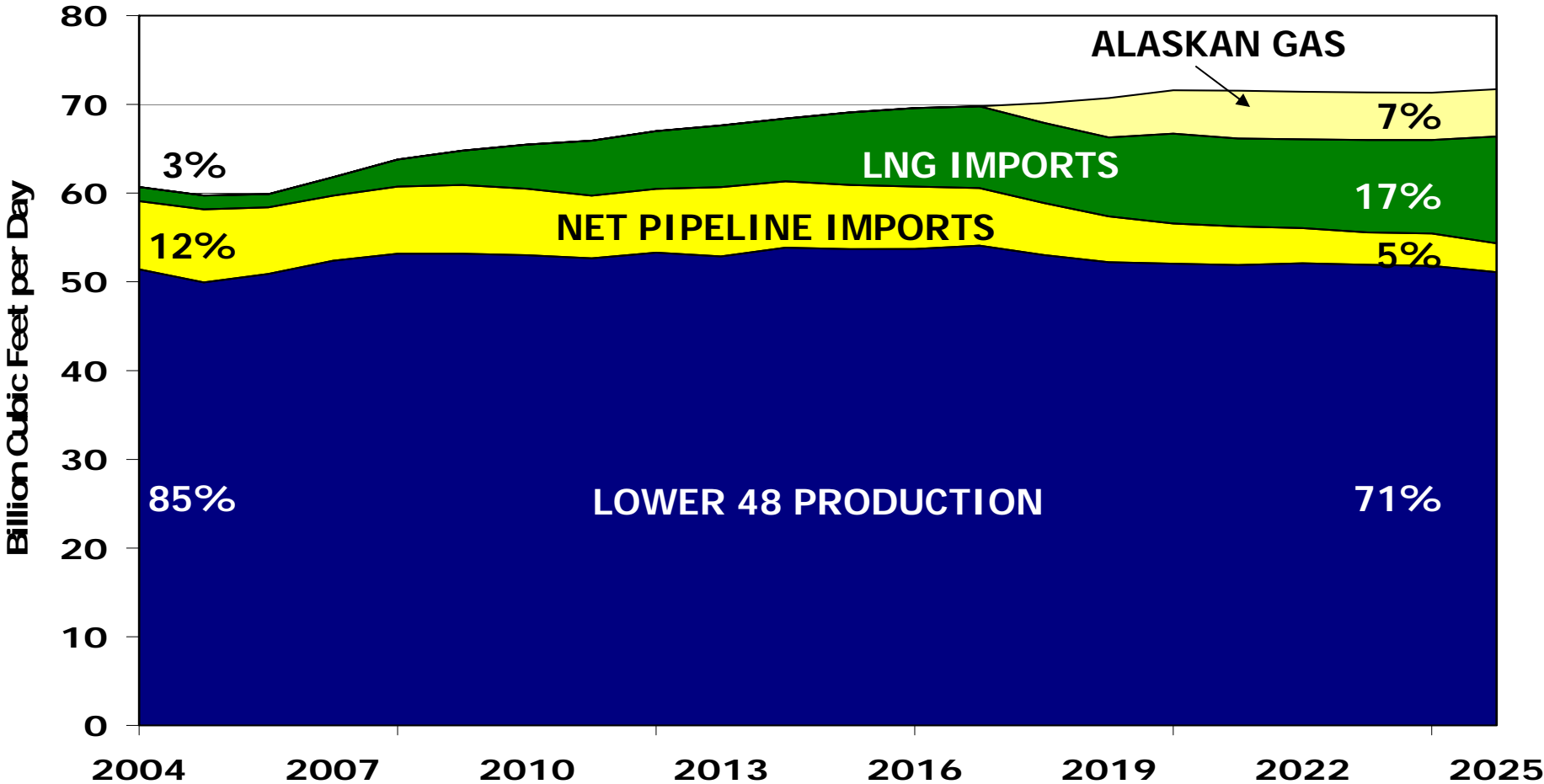


Source: Based on data from Ventyx Global Energy Decisions, Inc., Velocity Suite, April 2008.

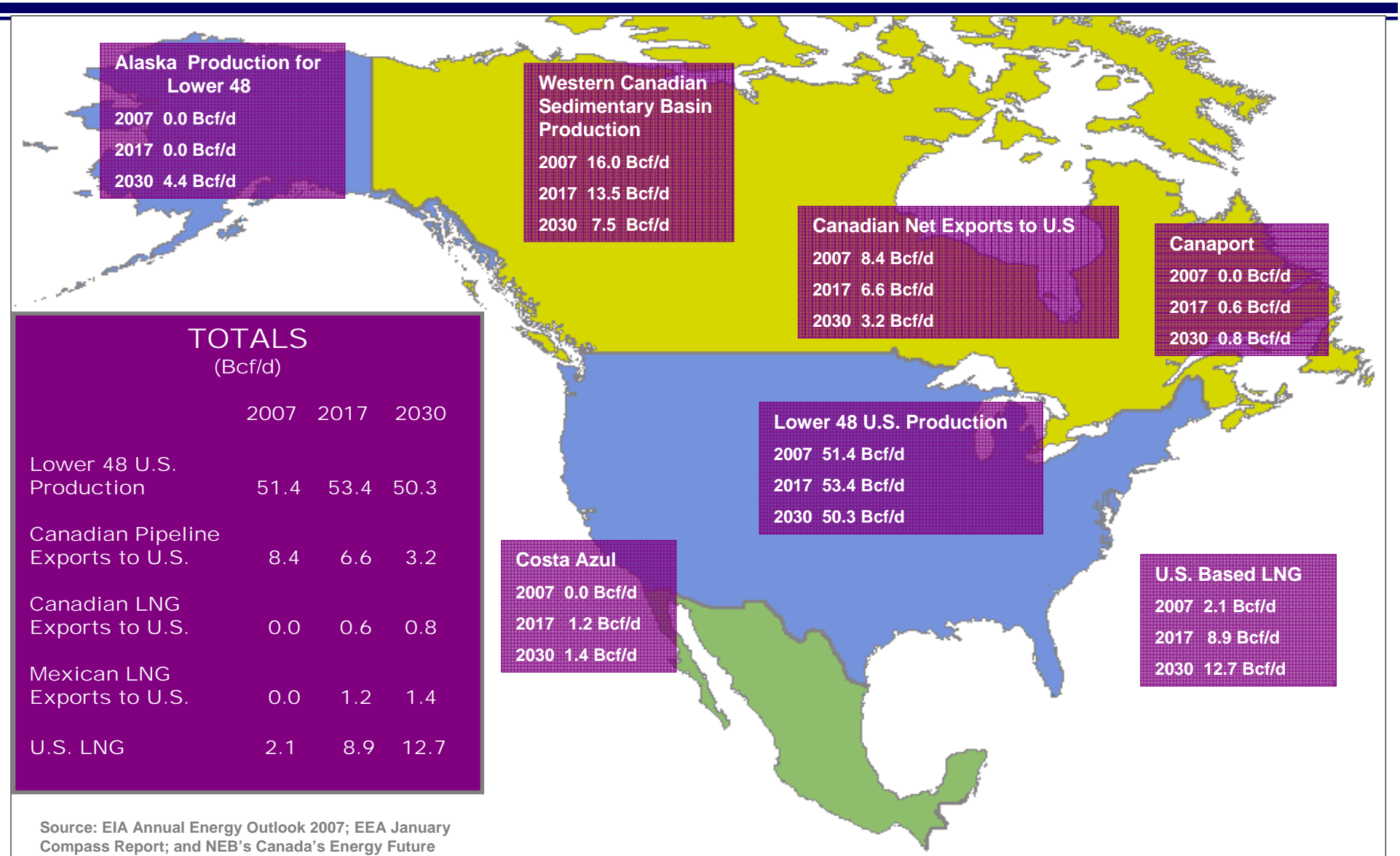
Gas – Pivotal Fuel for Electric Generation

- ➔ Coal is plentiful in North America; but carbon output brings uncertainty – CCS issues
- ➔ Renewables increasing; but still a small percentage of generation mix – Transmission is the problem
- ➔ Nuclear approval process and construction time is extensive – Estimates vary but minimum of ten years
- ➔ Gas-fired generation has smallest “carbon footprint” of fossil fuels; lowest capital cost

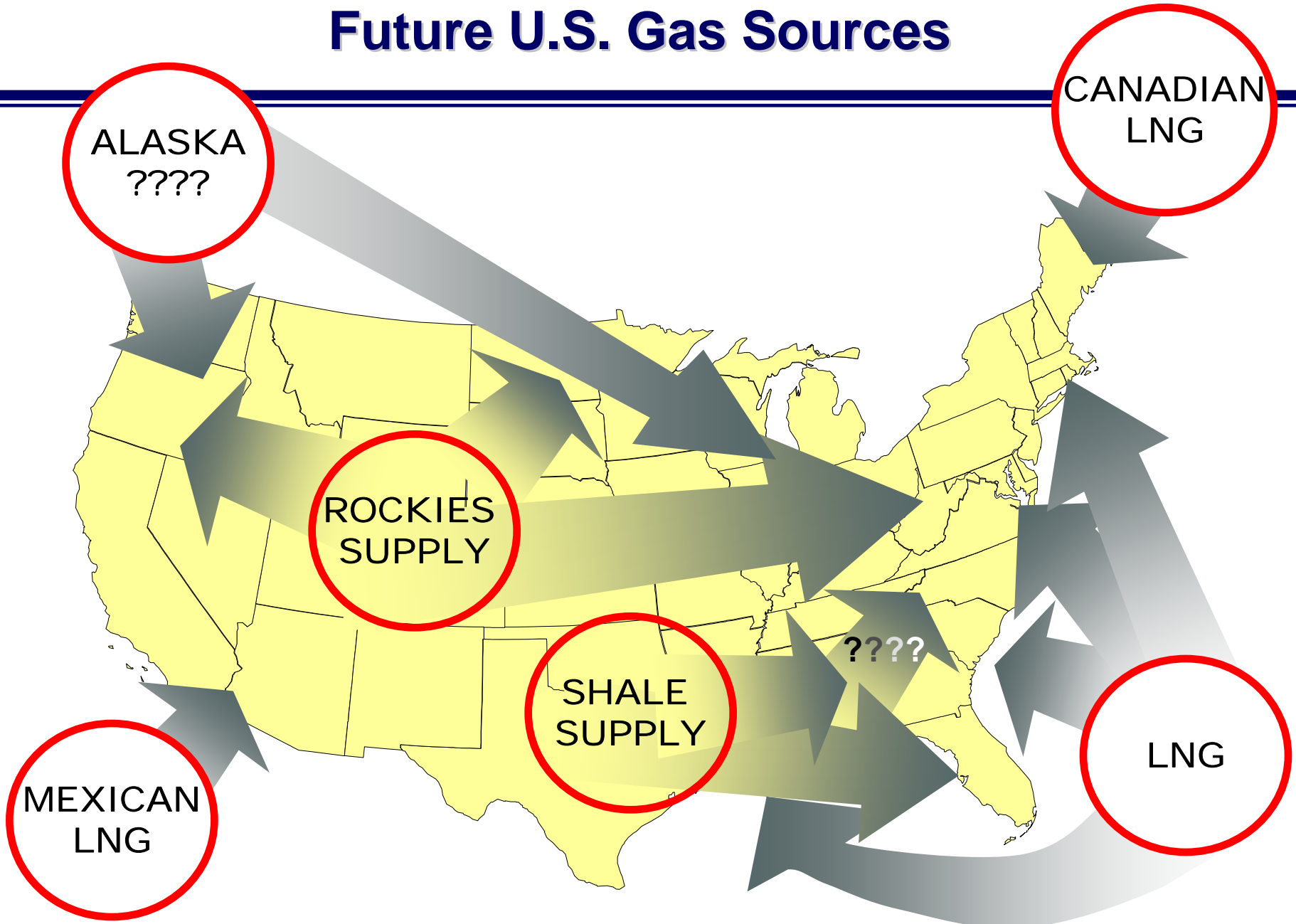
More Than Just Production and Canadian Imports Are Needed



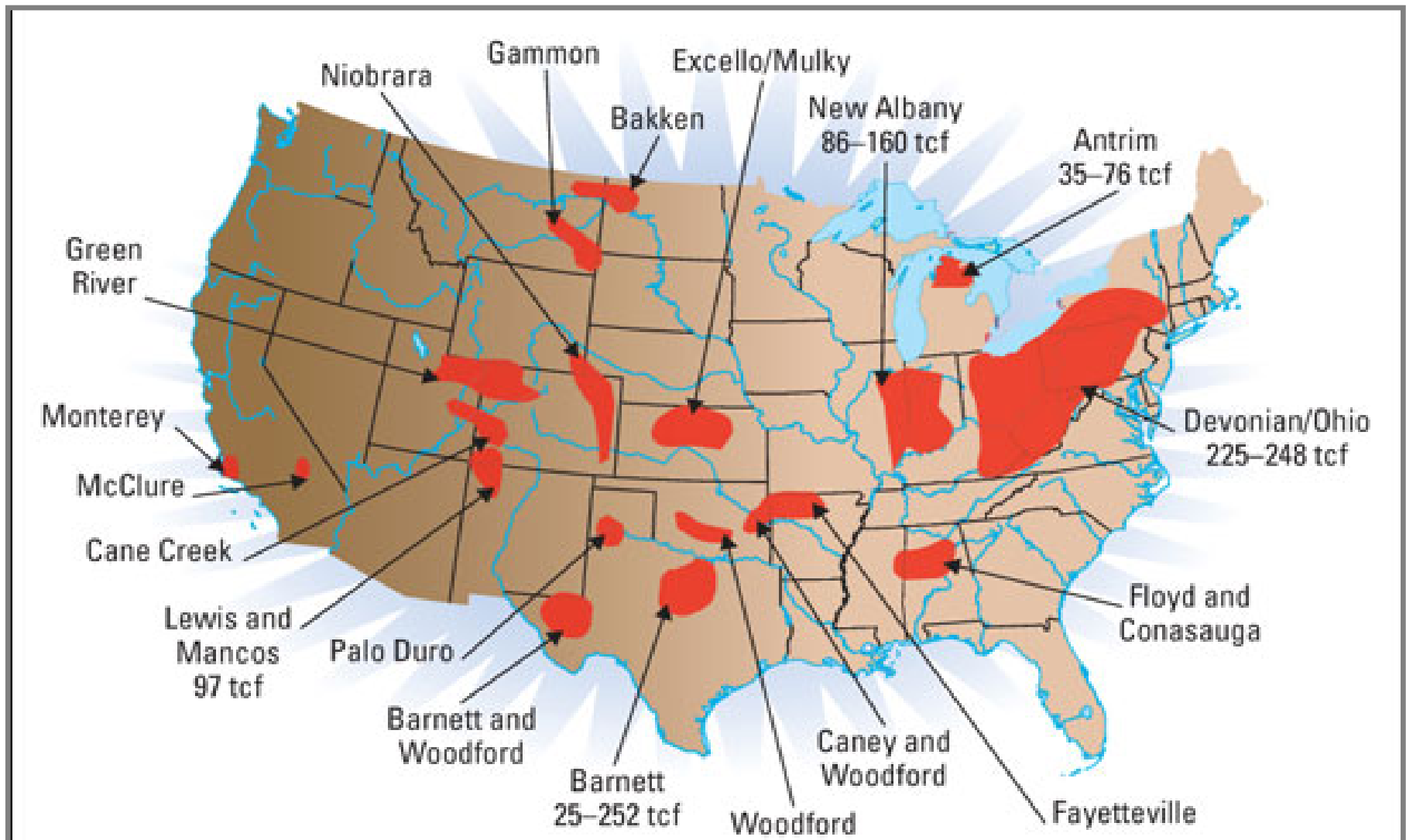
United States Supply Overview



Future U.S. Gas Sources

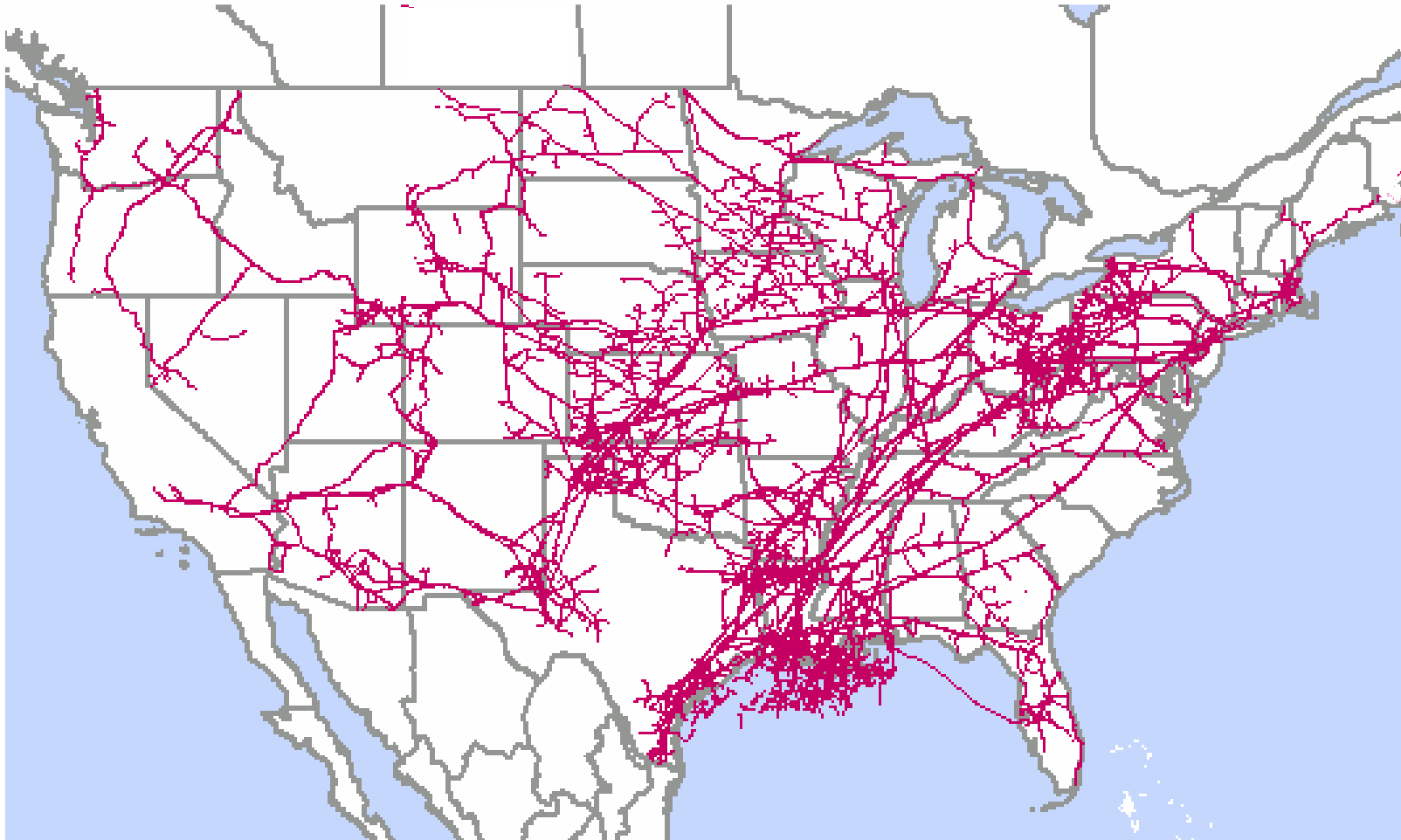


Major Shale Gas Basins in the United States with Total Resource Potential of 500 to 1000 Tcf



Source: White Paper – Shale Gas by Schlumberger

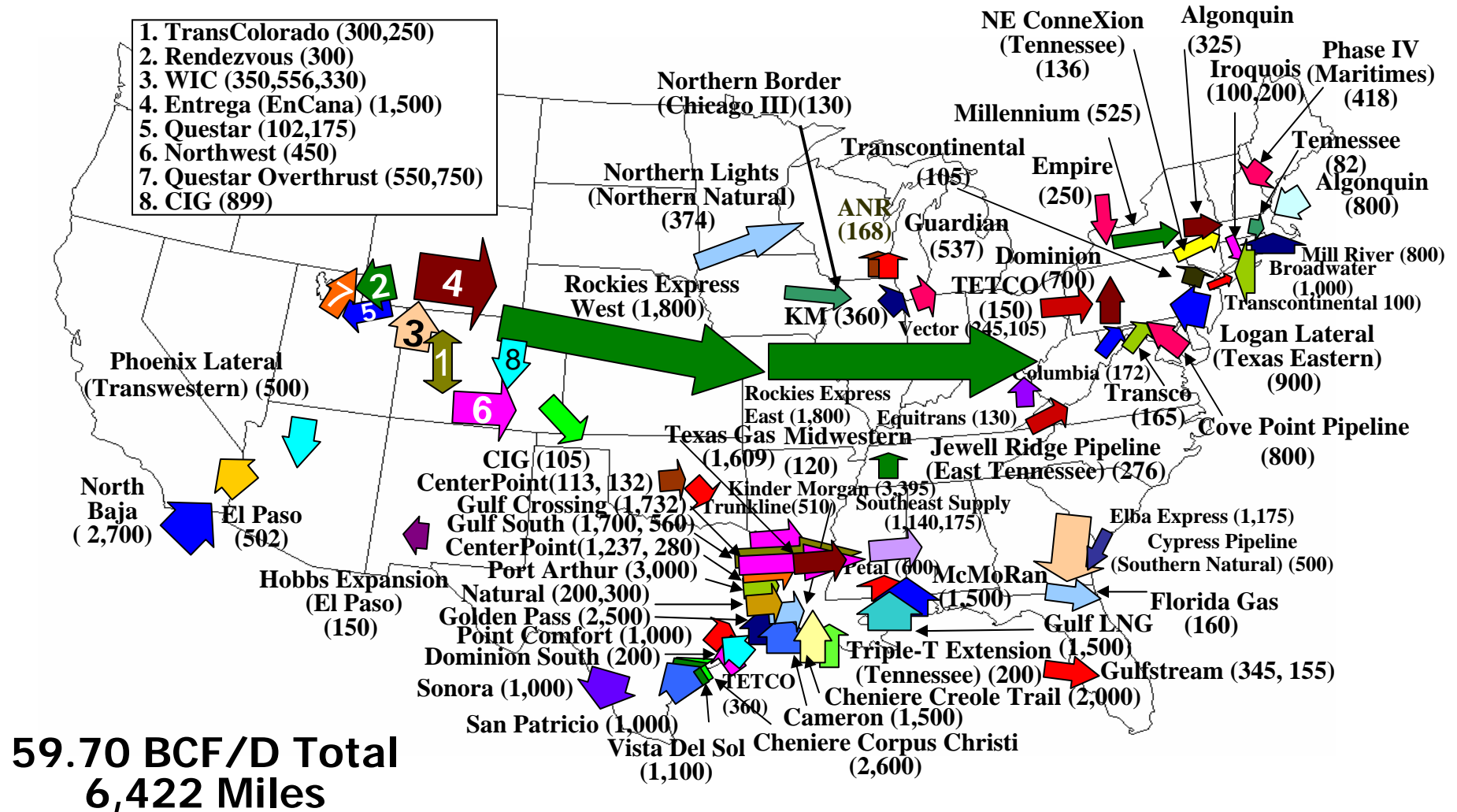
In the United States, there are approximately 215,000 miles of interstate natural gas transmission pipeline.



Source: Based on data from Ventyx Global Energy Decisions, Inc., Velocity Suite, April 2008, and EIA's Natural Gas Pipelines.

Major Pipeline Projects Certificated (MMcf/d)

January 2005 to June 2008



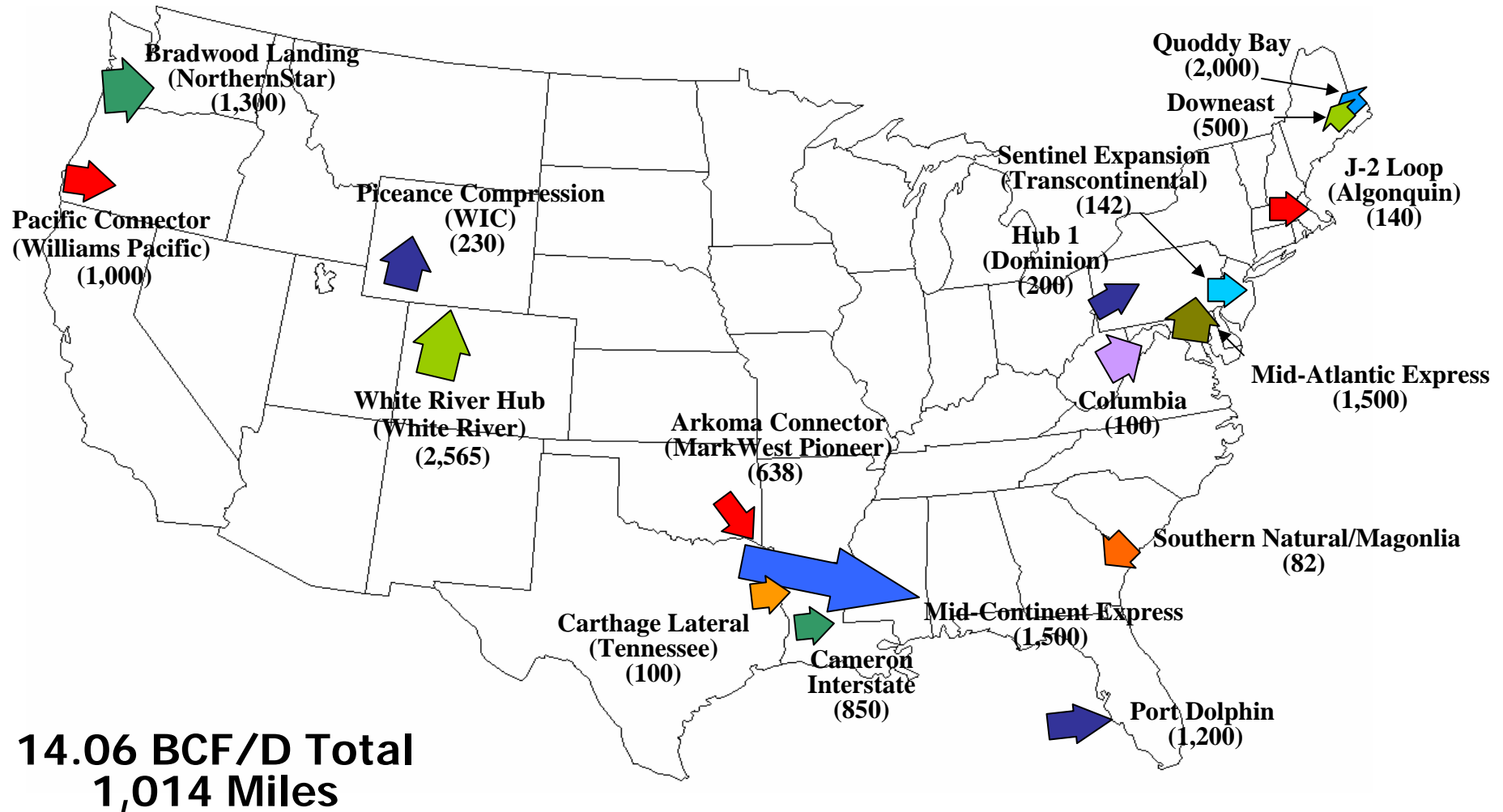
Purpose of Pipeline Construction Varies Over Time

	Capacity (Bcf/day)	Miles of Pipe	Compression (HP)	Cost (Billions)
2000	2.2	1,102.8	151,096	0.8
2001	8.8	2,700.3	870,767	4.4
2002	5.8	1,590.0	560,064	3.1
2003	1.7	352.4	221,545	1.0
2004	8.1	619.3	83,538	1.2
2005	14.3	785.1	123,036	1.9
2006	14.2	1,363.6	329,657	4.2
2007	23.2	2,772.7	849,110	8.1
2008 (June)	8.0	1,500.5	436,754	5.1
TOTAL	86.3	12,786.7	3,625,567	29.8

Source:
FERC

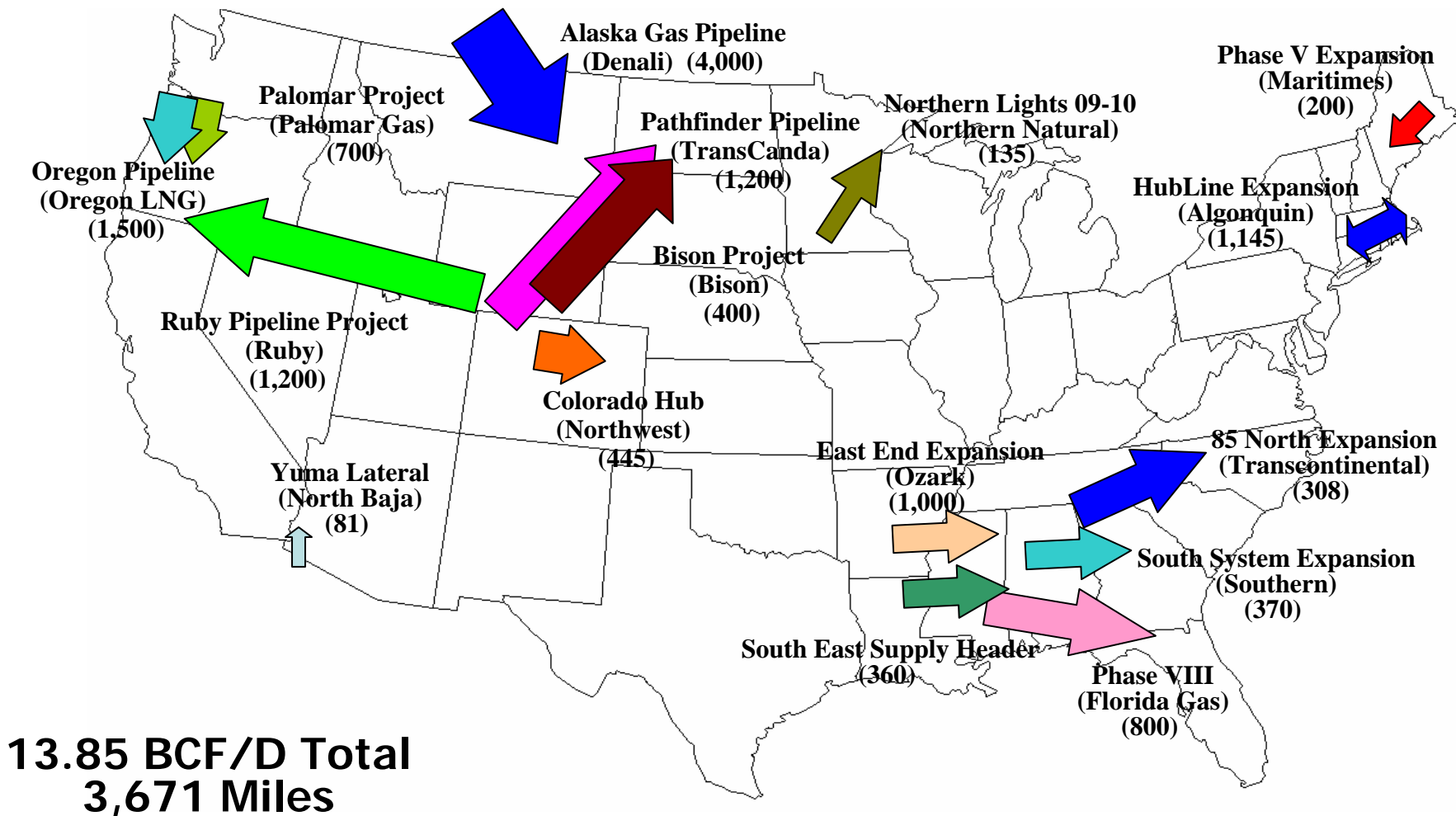
Major Pipeline Projects Pending (MMcf/d)

July 2008



Major Pipeline Projects Pre-Filing (MMcf/d)

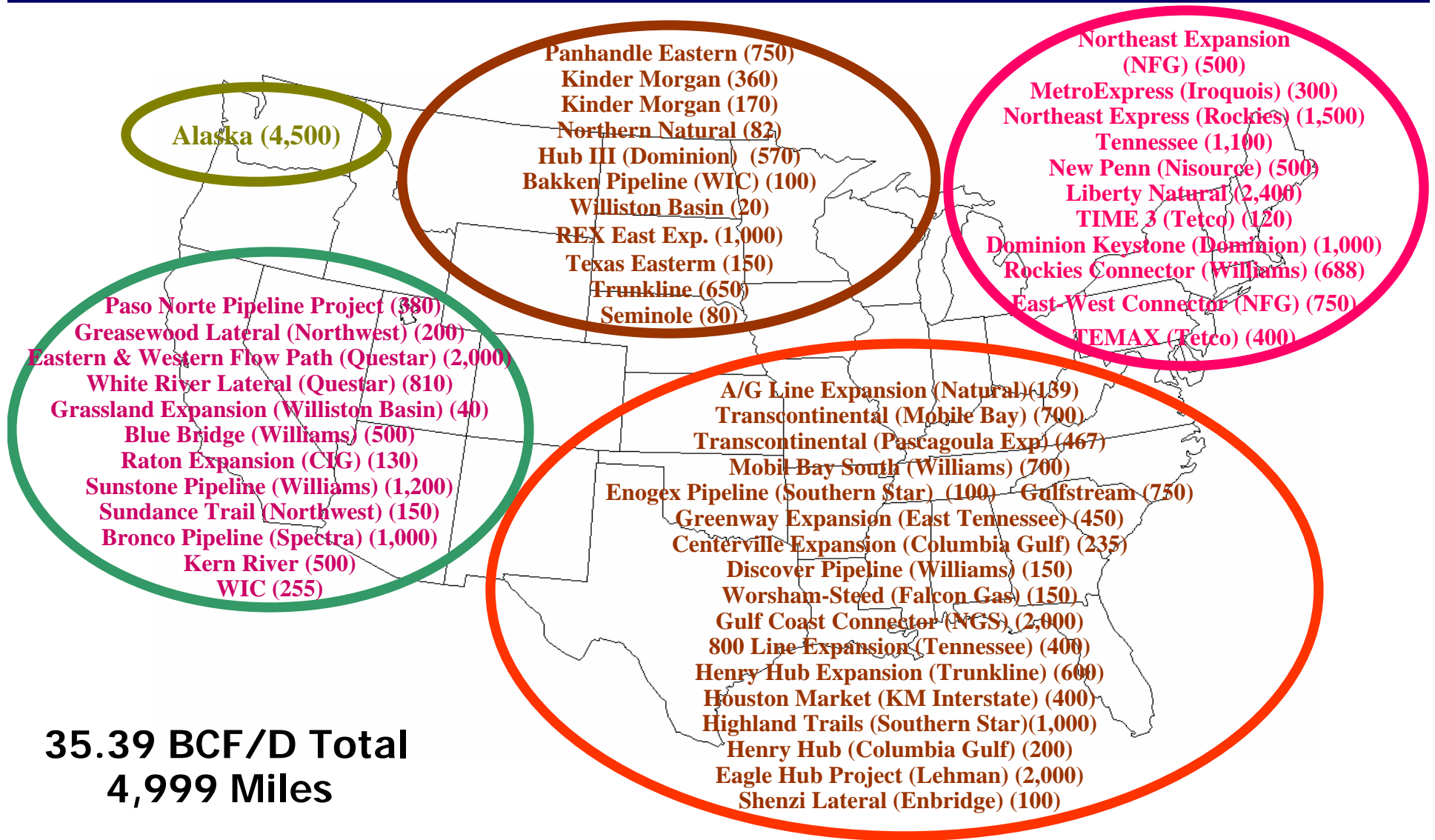
July 2008



13.85 BCF/D Total
3,671 Miles

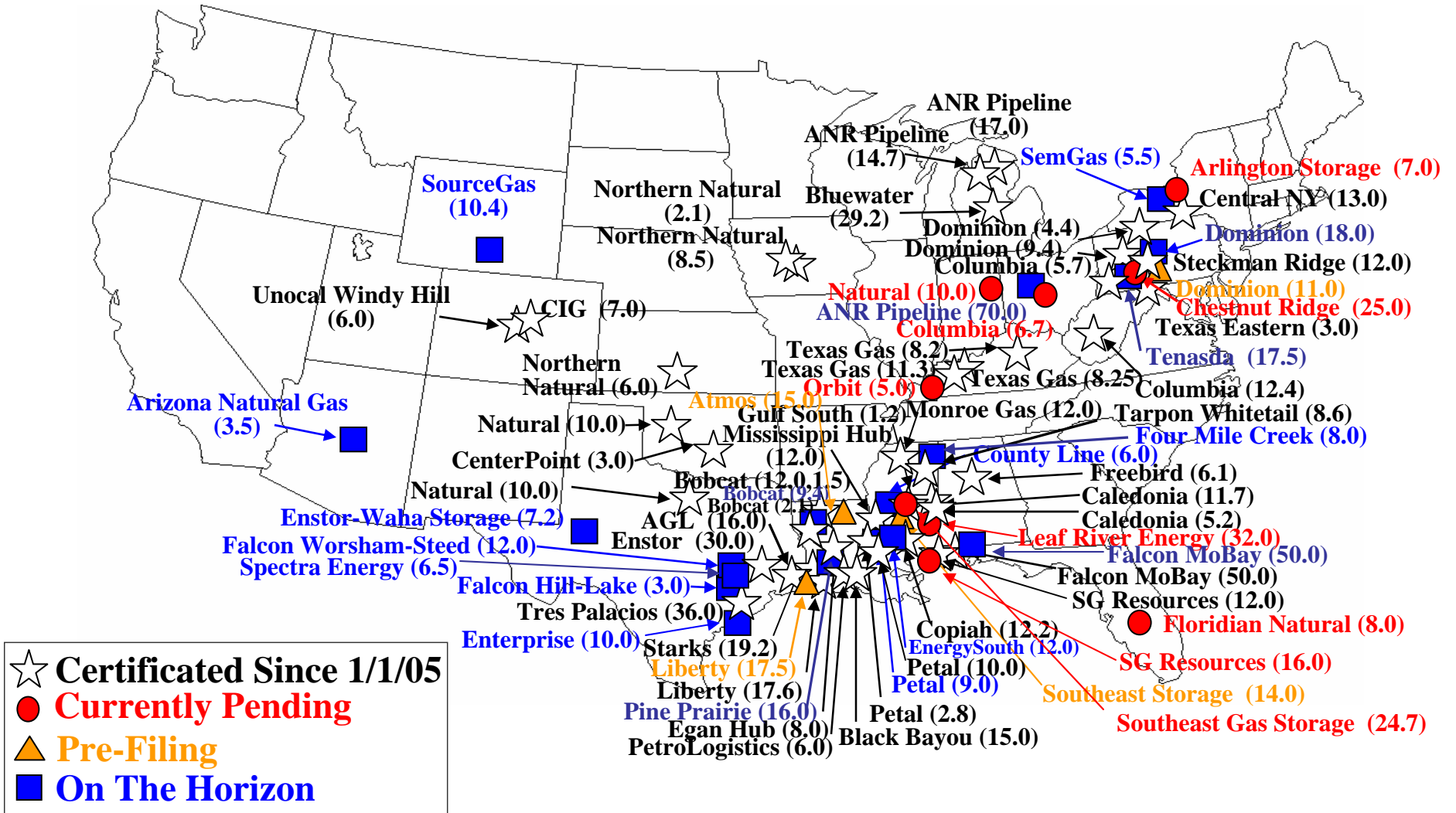
Major Pipeline Projects On The Horizon (MMcf/d)

July 2008

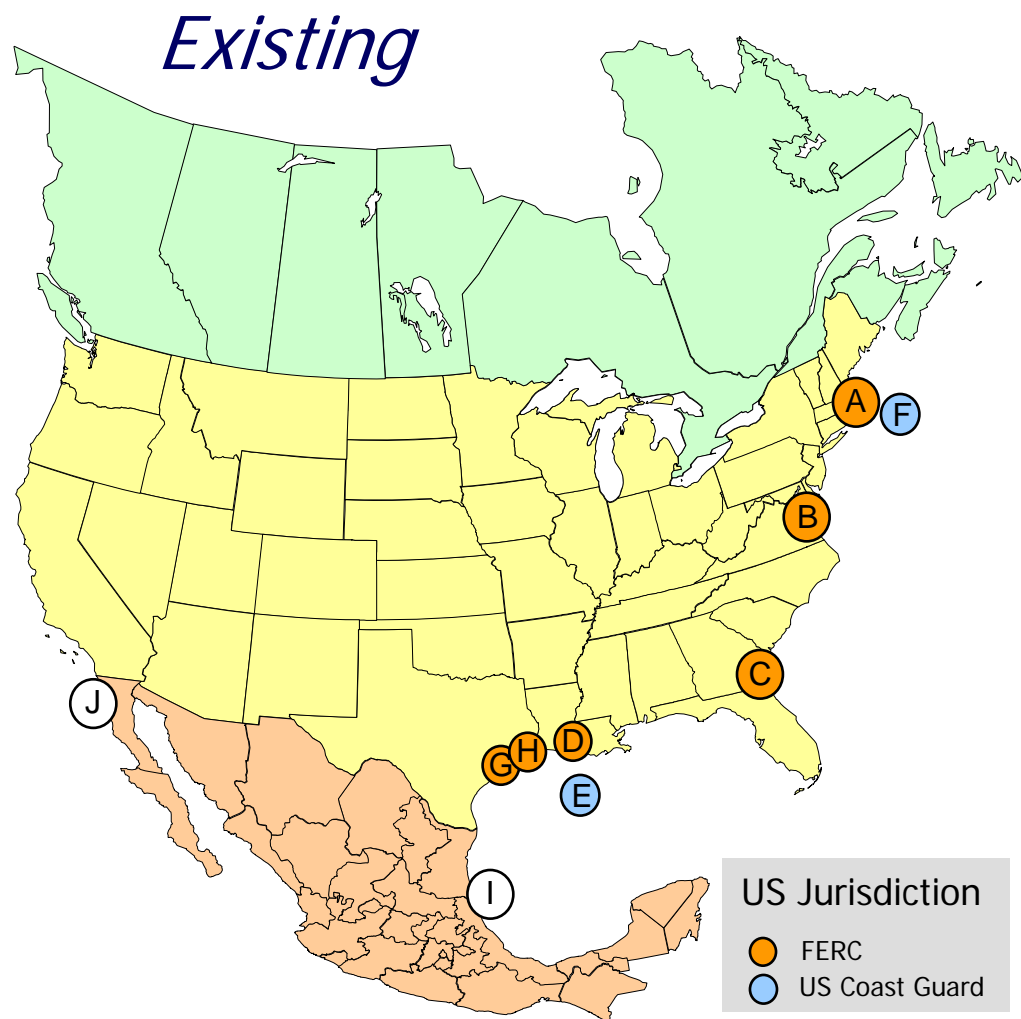


35.39 BCF/D Total
4,999 Miles

All Storage Projects (Capacity in Bcf)



North American LNG Import Terminals



As of June 19, 2008

U.S.

- A. Everett, MA :** 1.035 Bcfd (SUEZ LNG - DOMAC)
- B. Cove Point, MD :** 1.0 Bcfd (Dominion - Cove Point LNG)
- C. Elba Island, GA :** 1.2 Bcfd (El Paso - Southern LNG)
- D. Lake Charles, LA :** 2.1 Bcfd (Southern Union - Trunkline LNG)
- E. Gulf of Mexico:** 0.5 Bcfd, (Gulf Gateway Energy Bridge - Excelerate Energy)
- F. Offshore Boston:** 0.8 Bcfd, (Gulf Gateway-Excelerate Energy)
- G. Freeport, TX:** 1.5 Bcfd, (Cheniere/Freeport LNG Dev.)
- H. Sabine, LA:** 2.6 Bcfd (Sabine Pass Cheniere LNG)

Mexico

- I. Altamira, Tamulipas:** 0.7 Bcfd, (Shell/Total/Mitsui)
- J. Baja California, MX:** 1.0 Bcfd, (Sempra)

North American LNG Import Terminals

APPROVED - UNDER CONSTRUCTION

U.S.

1. Hackberry, LA: 1.8 Bcfd (Cameron LNG - Sempra Energy)
2. Sabine, TX: 2.0 Bcfd (Golden Pass - ExxonMobil)
3. Cove Point, MD : 0.8 Bcfd (Dominion - Expansion)*
4. Sabine, LA: 1.4 Bcfd (Sabine Pass Cheniere LNG - Expansion)
5. Elba Island, GA: 0.9 Bcfd (El Paso - Southern LNG Expansion)*
6. Pascagoula, MS: 1.5 Bcfd (Gulf LNG Energy LLC)

Canada

7. St. John, NB: 1.0 Bcfd, (Canaport - Irving Oil)

APPROVED - NOT UNDER CONSTRUCTION

J.S. - FERC

8. Corpus Christi, TX: 1.0 Bcfd (Ingleside Energy - Occidental Energy Ventures)
9. Corpus Christi, TX: 2.6 Bcfd, (Cheniere LNG)
10. Corpus Christi, TX : 1.1 Bcfd (Vista Del Sol - 4Gas)
11. Fall River, MA : 0.8 Bcfd, (Weaver's Cove Energy/Hess LNG)
12. Port Arthur, TX: 3.0 Bcfd (Sempra)
13. Logan Township, NJ : 1.2 Bcfd (Crown Landing LNG - BP)
14. Cameron, LA: 3.3 Bcfd (Creole Trail LNG - Cheniere LNG)
15. Freeport, TX: 2.5 Bcfd (Cheniere/Freeport LNG Dev. - Expansion)
16. Hackberry, LA: 0.85 Bcfd (Cameron LNG - Sempra Energy - Expansion)
17. Pascagoula, MS: 1.3 Bcfd (Casotte Landing - ChevronTexaco)
18. Port Lavaca, TX: 1.0 Bcfd (Calhoun LNG - Gulf Coast LNG Partners)
19. LI Sound, NY: 1.0 Bcfd (Broadwater Energy-TransCanada/Shell)

U.S. - MARAD/Coast Guard

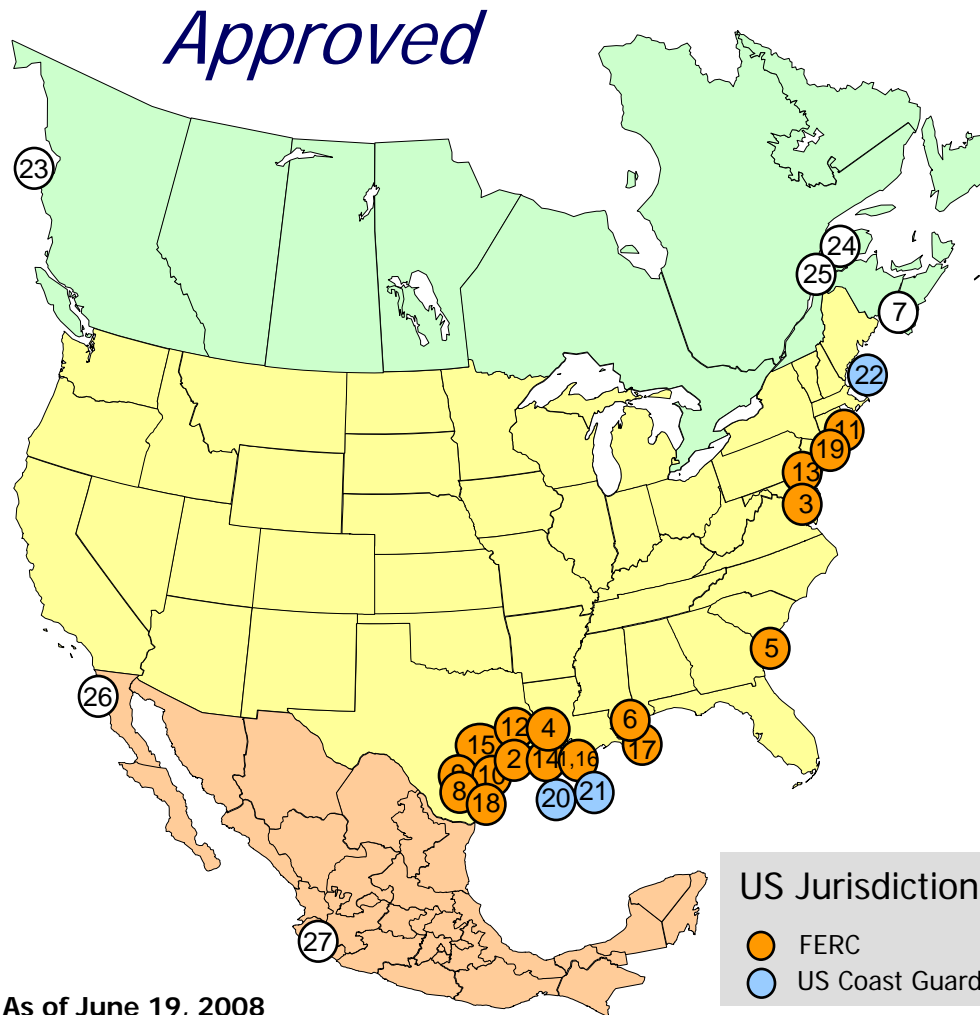
20. Port Pelican: 1.6 Bcfd, (Chevron Texaco)
21. Gulf of Mexico: 1.0 Bcfd (Main Pass McMoRan Exp.)
22. Offshore Boston, MA: 0.4 Bcfd (Neptune LNG - Tractebel)

Canada

23. Kitimat, BC: 1.0 Bcfd (Galveston LNG)
24. Rivière-du- Loup, QC: 0.5 Bcfd (Cacouna Energy - TransCanada/PetroCanada)
25. Quebec City, QC : 0.5 Bcfd (Project Rabaska - Enbridge/Gaz Met/Gaz de France)

Mexico

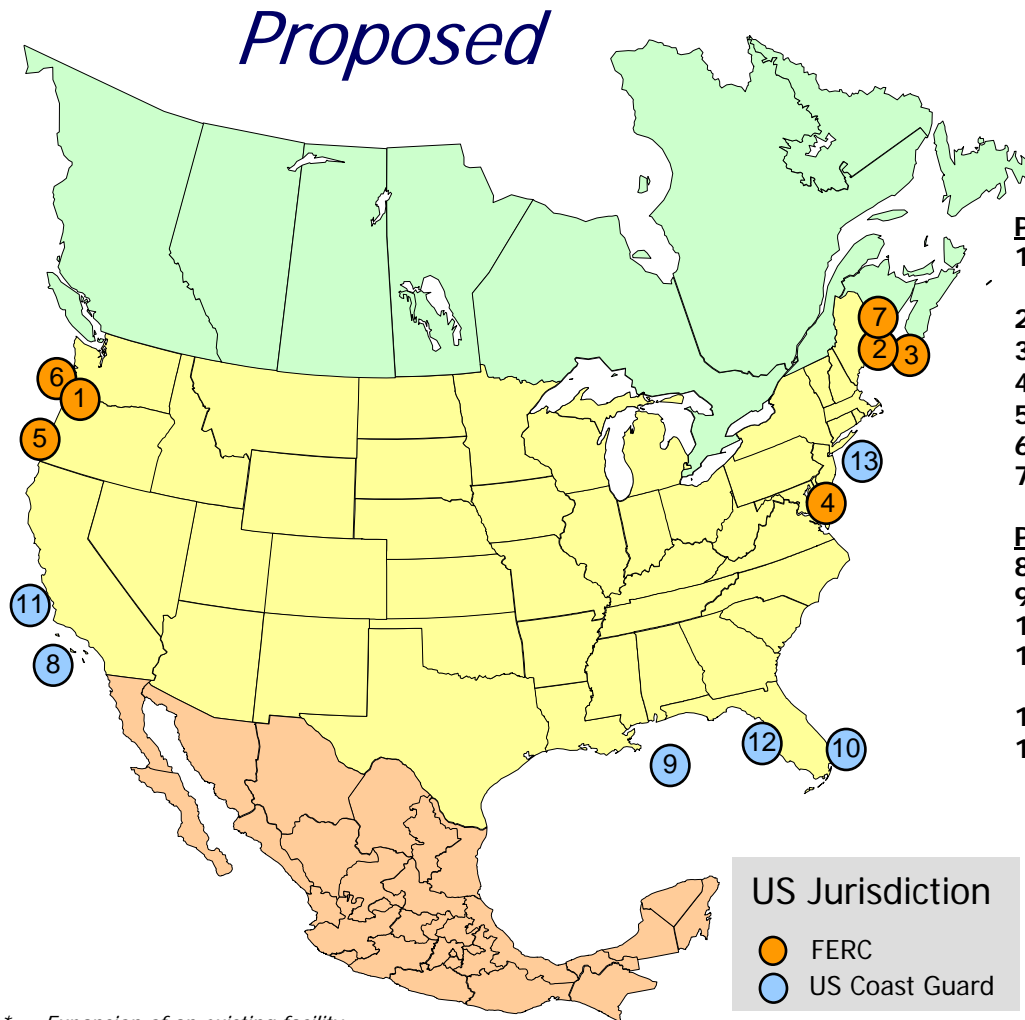
26. Baja California, MX : 1.5 Bcfd (Energy Costa Azul - Sempra - Expansion)
27. Manzanillo, MX: 0.5 Bcfd



As of June 19, 2008

* Expansion of an existing facility

North American LNG Import Terminals



PROPOSED TO FERC

- 1. **Bradwood, OR:** 1.0 Bcfd (Northern Star LNG - Northern Star Natural Gas LLC)
- 2. **Pleasant Point, ME:** 2.0 Bcfd (Quoddy Bay, LLC)
- 3. **Robbinston, ME:** 0.5 Bcfd (Downeast LNG - Kestrel Energy)
- 4. **Baltimore, MD:** 1.5 Bcfd (AES Sparrows Point - AES Corporation)
- 5. **Coos Bay, OR:** 1.0 Bcfd (Jordan Cove Energy Project)
- 6. **Astoria, OR:** 1.5 Bcfd (Oregon LNG)
- 7. **Calais, ME:** 1.5 Bcfd (BP Consulting LLC)

PROPOSED TO MARAD/COAST GUARD

- 8. **California Offshore :** 1.4 Bcfd, (Clearwater Port LLC)
- 9. **Gulf of Mexico:** 1.4 Bcfd (Bienville LNG - TORP Technology)
- 10. **Offshore Florida:** 1.9 Bcfd (SUEZ Calypso - SUEZ LNG)
- 11. **Offshore California:** 1.2 Bcfd (OceanWay - Woodside Natural Gas)
- 12. **Offshore Florida:** 1.2 Bcfd (Hoëgh LNG - Port Dolphin Energy)
- 13. **Offshore New York:** 2.0 Bcfd (Safe Harbor Energy - ASIC, LLC)

* Expansion of an existing facility

As of June 19, 2008

Final Observations

- Traditional gas supplies – domestic and Canadian imports are declining
- LNG could be a solution – if it is allowed
- There is some pipeline expansion expected to get the Rockies gas to the Northeast
- It would appear that expansion of the existing long lines from the Southeast to the Northeast will be necessary to get new sources to market
- Power generation will be increasingly dependent upon gas-fired generation