



USAID
FROM THE AMERICAN PEOPLE



National
Association of
Regulatory
Utility
Commissioners



PUBLIC SERVICES
REGULATORY
COMMISSION



NATURAL GAS MARKET IN UNITED STATES

NARUC Energy Regulatory Partnership Program

The Public Services Regulatory Commission of Armenia
and The Iowa Utilities Board



Cecil Wright
Assistant General Counsel
March 28, 2011

FEDERAL REGULATION

- Regulation dates back to the beginning of the natural gas industry, the mid-1800s
- Natural gas was predominantly manufactured from coal and delivered locally within cities
- Cities considered the natural gas distribution as a natural monopoly and regulated rates to prevent abuse of market power



Federal Regulation cont ...

- Early 1900s, natural gas was being transported between cities
- This began the intrastate pipeline system
- Cities could no longer regulate all aspects of the industry
- State governments intervened to regulate the new intrastate market
- Early public service commissions were established to regulate the industry



Federal Regulation cont ...

- Interstate transmission pipelines were developed once pipelines connected customers across state lines
- U.S. Supreme Court said states could not regulate interstate commerce
- 1938, Congress passed the Natural Gas Act (NGA) that brought federal oversight of interstate natural gas



Federal Regulation cont ...

- NGA gave Federal Power Commission (FPC), the predecessor of the Federal Energy Regulatory Commission (FERC), jurisdiction over interstate natural gas sales
- FPC had authority over rates and some certification of pipelines
- FPC held that new pipelines could not compete in areas served by existing pipelines
- NGA regulated rates for delivery of natural gas but not wellhead prices



Federal Regulation cont ...

- All aspects of natural gas industry were regulated at the federal level prior to 1989
- This included production, gathering, transmission, storage, and distribution



Federal Regulation cont ...

- 1954, U.S. Supreme Court ruled that natural gas producers that sold gas into interstate pipelines were subject to the NGA
- This meant that the FPC could regulate wellhead prices
- Wellhead cost-of-service regulation seen by some as cause of 1970s natural gas shortages



Federal Regulation cont ...

- FERC given authority over interstate transportation of natural gas on behalf of intrastate pipelines and local distribution companies
- NGPA resulted in long term contracts for natural gas, expanded production, average wellhead prices rose based upon market forces, prices for end-users went up, and price increases reduced demand



FERC ORDER 636

- Well head prices were completely deregulated in 1989
- FERC issued Order 636 in 1992
- Order 636 made unbundling of the sale of gas from the transportation of gas a requirement rather than voluntary
- Interstate pipelines could no longer engage in merchant sales to customers
- Required institution by interstate pipelines of services that included: no-notice transportation service, access to storage facilities, flexibility in receipt and delivery points, capacity release programs, and required electronic bulletin boards accessible to all customers on an equal basis



FERC RATE SETTING

- Regulation of pipeline, storage, and liquefied natural gas facility construction
- Regulation of natural gas transportation in interstate commerce
- Issuance of certificates of public convenience and necessity to prospective companies providing energy services or constructing and operating interstate pipelines and storage facilities
- Regulation of facility abandonment
- Establishment of rates for services

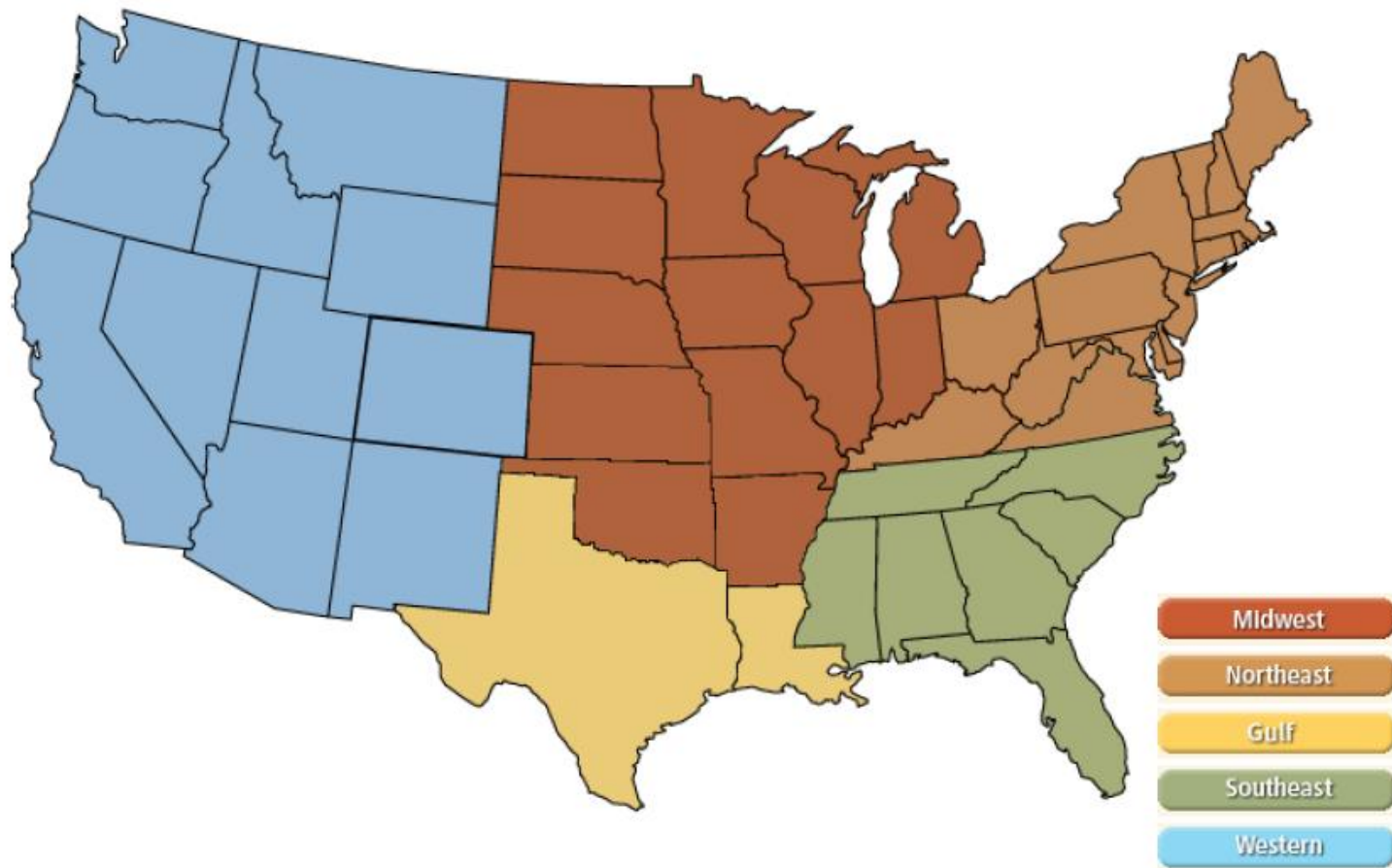


U.S. NATURAL GAS MARKET TODAY

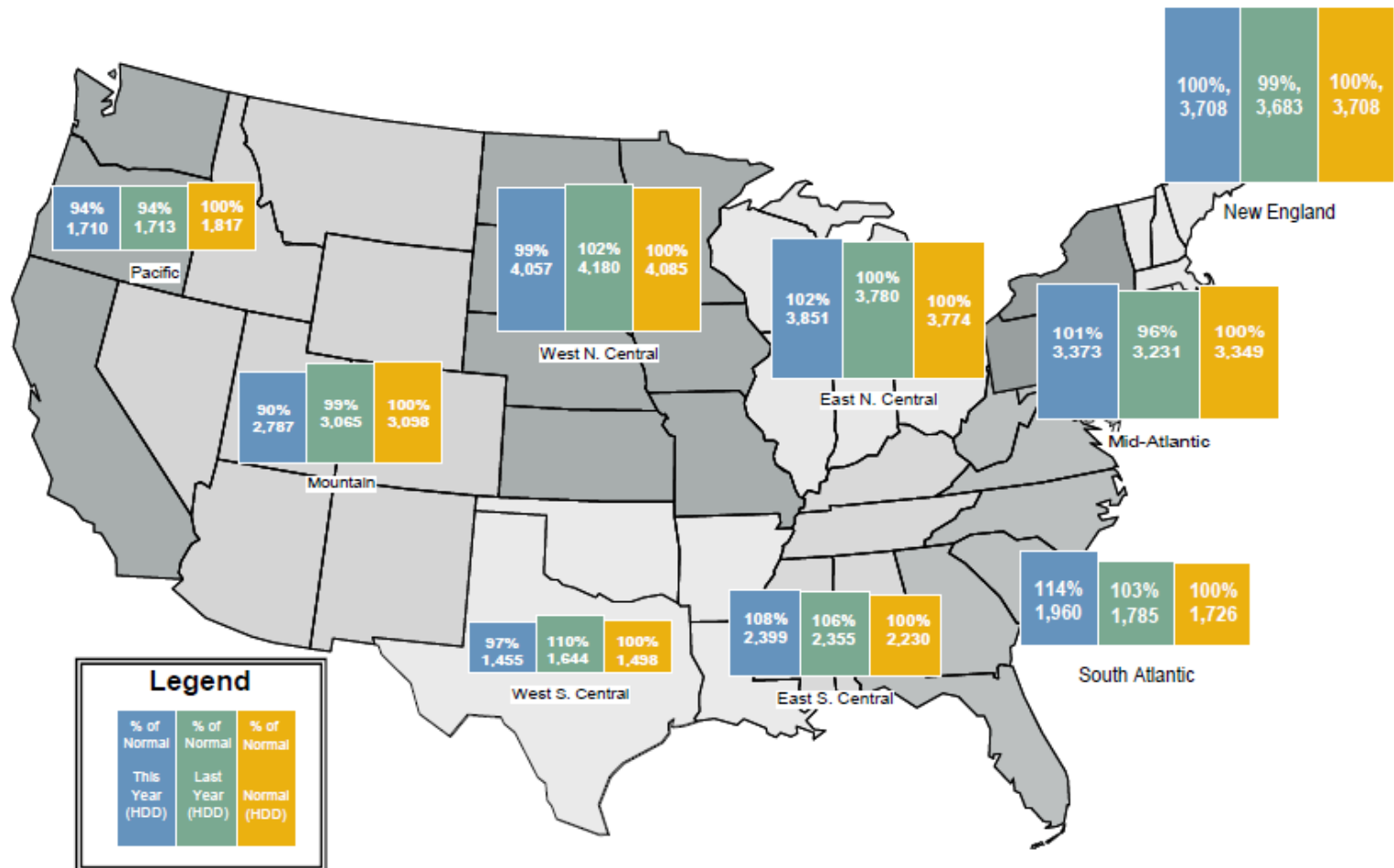
- Since Order 636, the interstate natural gas market is now subject to competition for the sale of gas
- Interstate pipelines act only as transporters
- Market reviews address areas of the country, heating degree days, gas consumption, gas storage, and gas production
- Natural gas is primarily used in winter for heating, but gas fired electric generators have increased usage in summer months



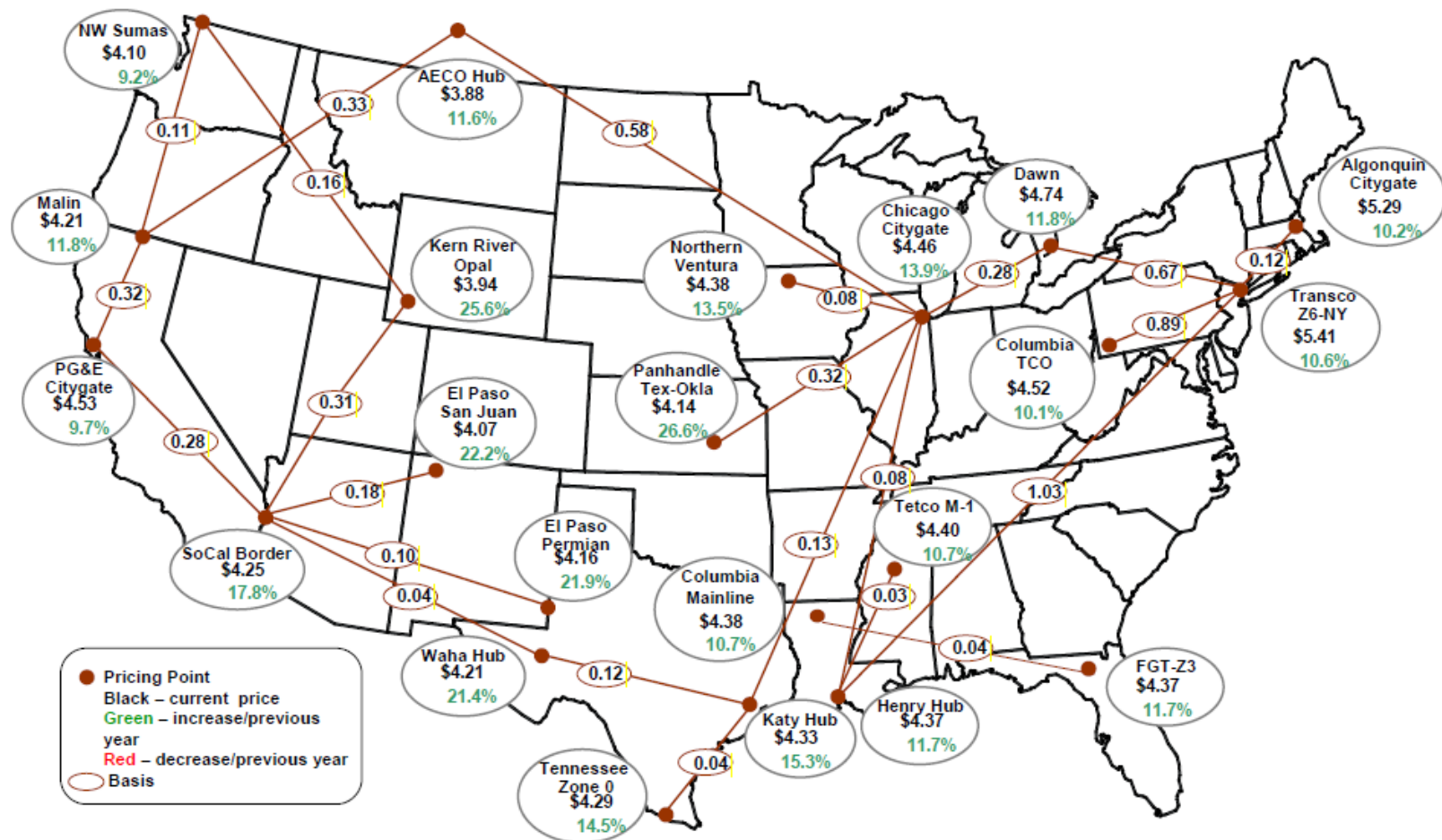
Natural Gas Market National Overview



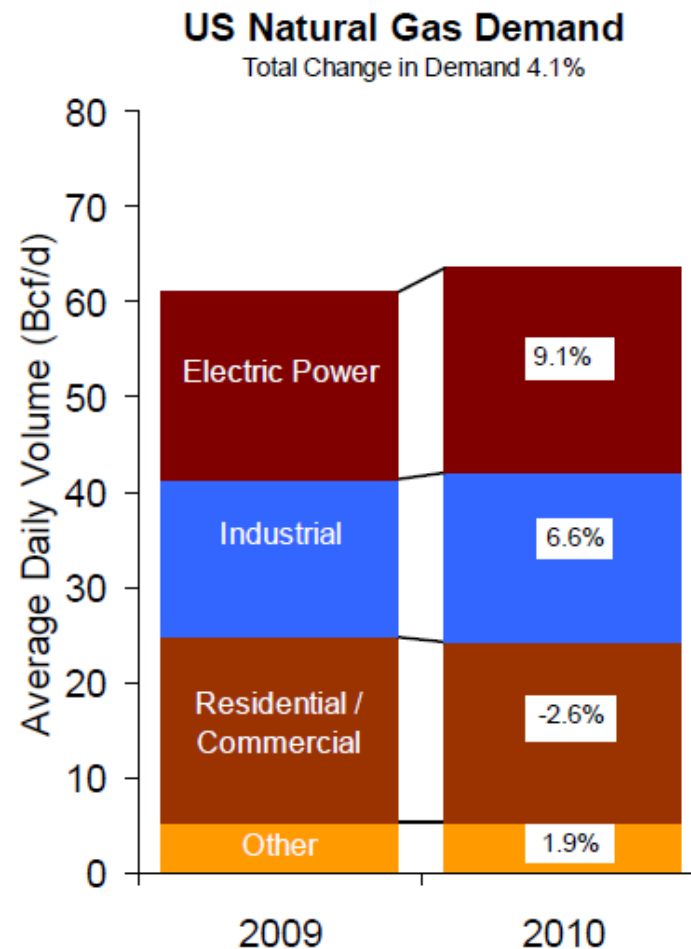
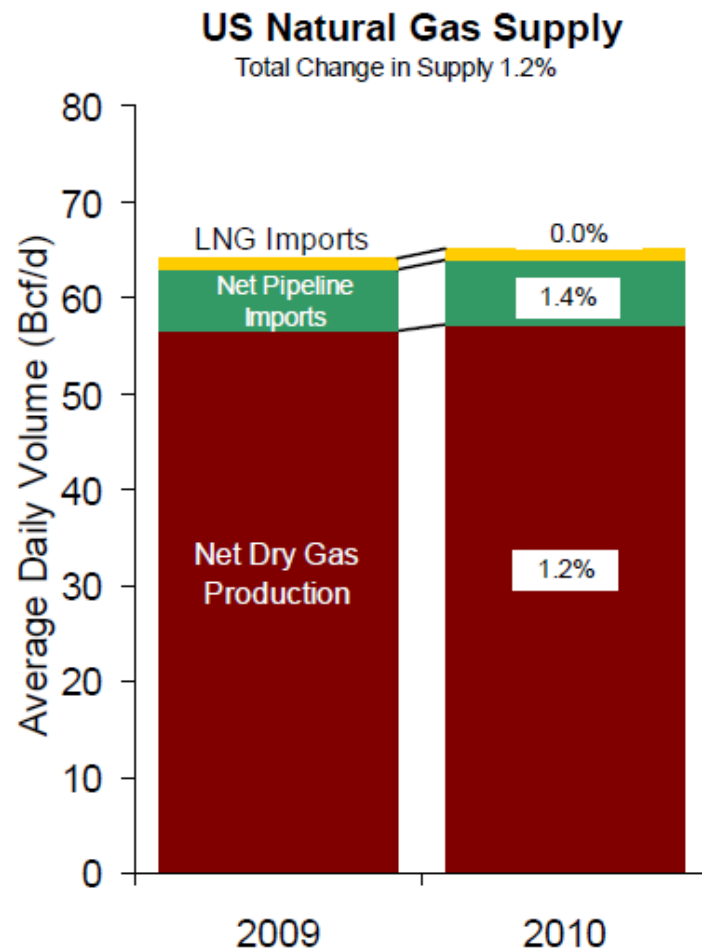
Regional Heating Degree Days July 2010 Through January 2011



Average Spot Gas Prices, 2010 (\$MMBtu)



U.S. Natural Gas Supply and Demand 2009 vs. 2010: January - September

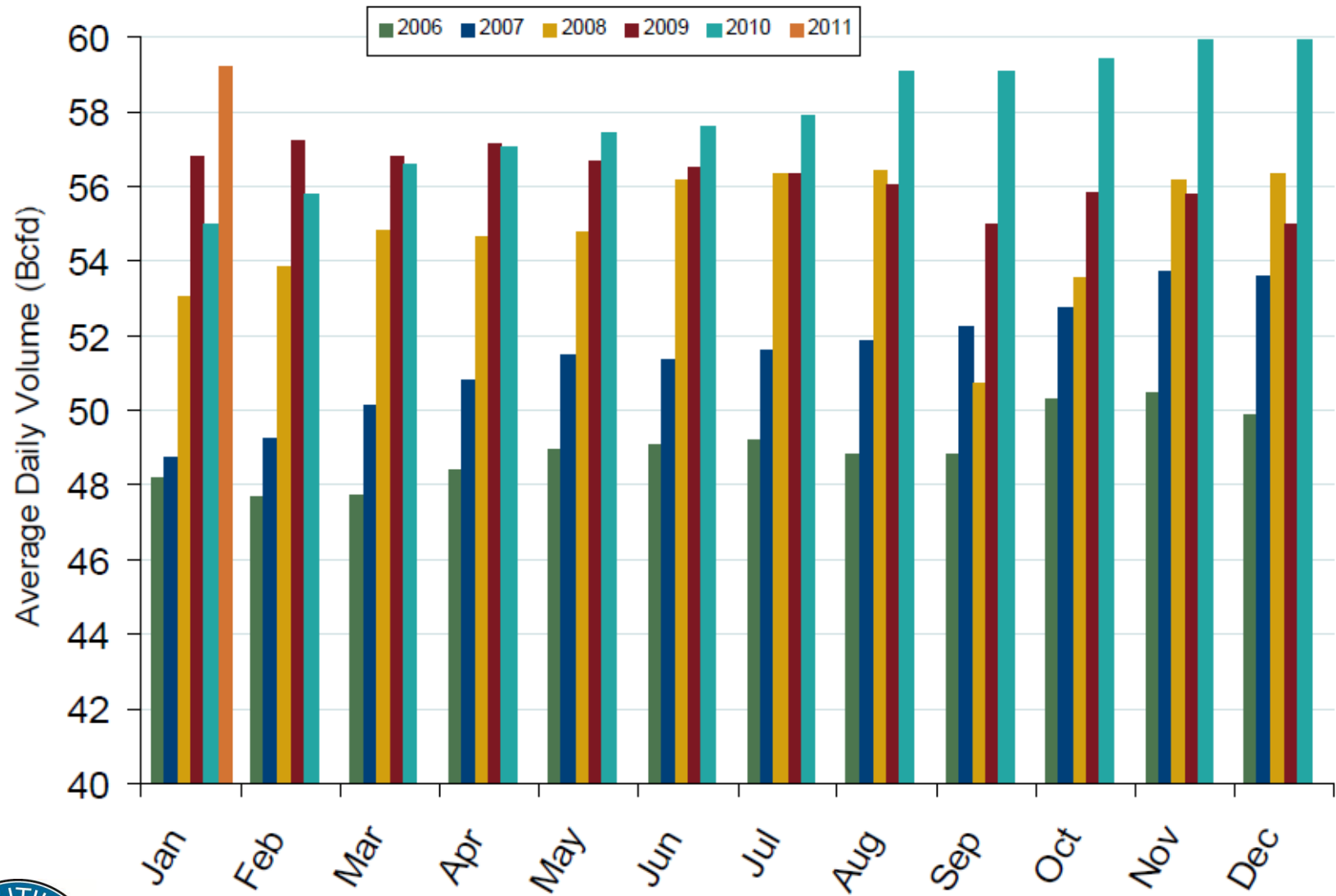


U.S. NATURAL GAS PRODUCTION

- Net dry gas production
- LNG imports
- World LNG estimated MARC 2011 landed prices



U.S. Dry Gas Production



World LNG Estimated March 2011 Landed Prices

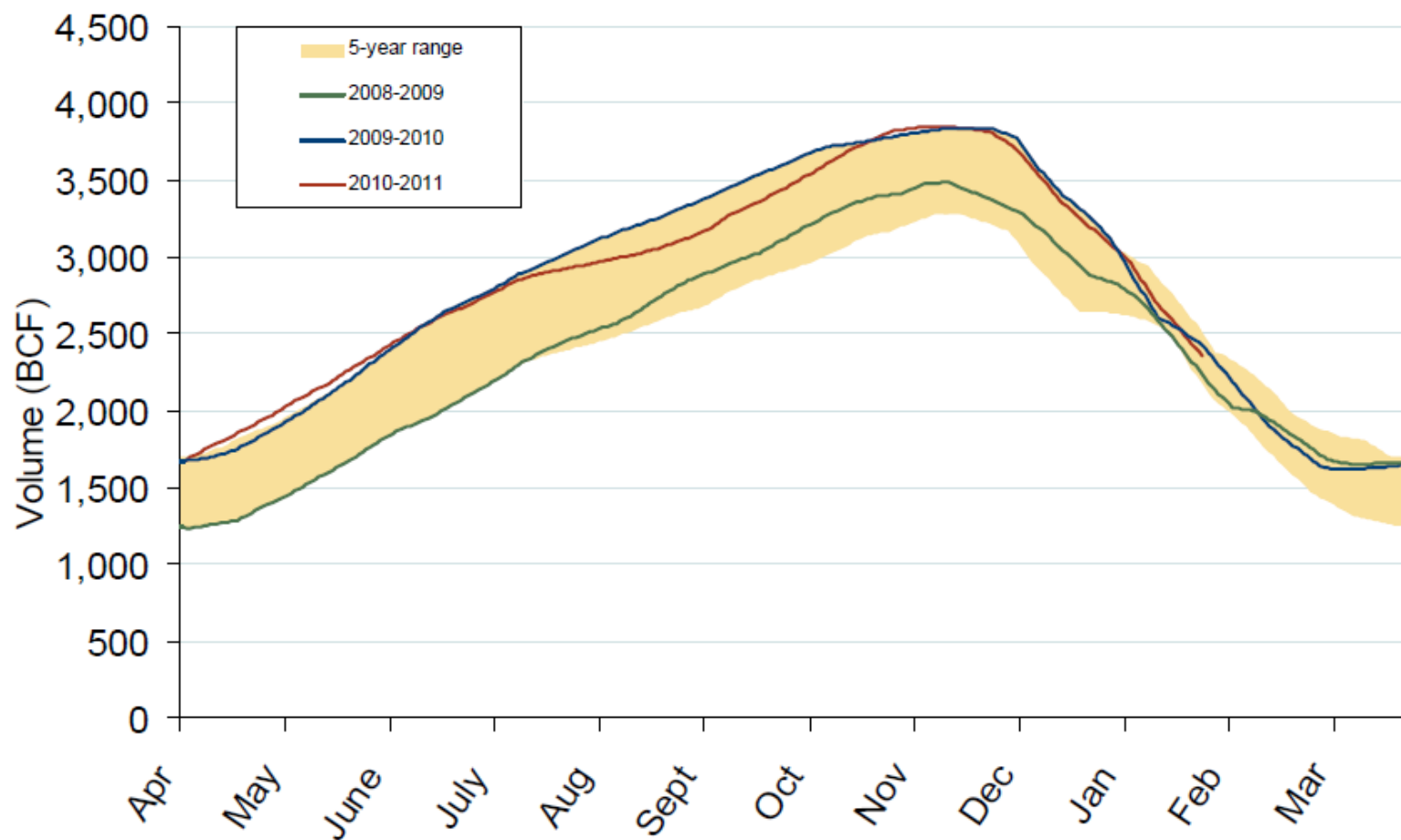


PRODUCTION AND STORAGE

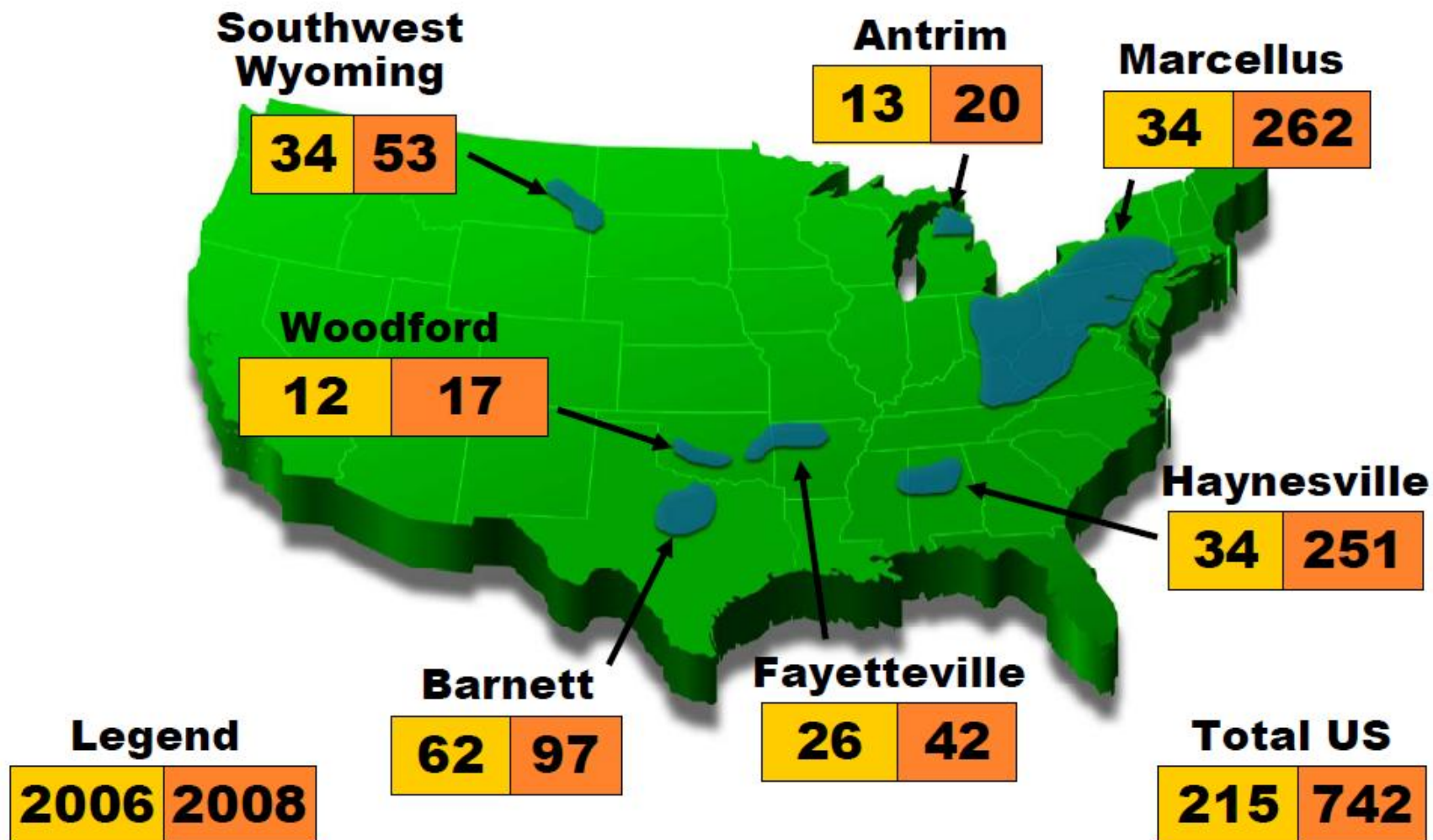
- RIG count
- Shale
- Total gas in storage



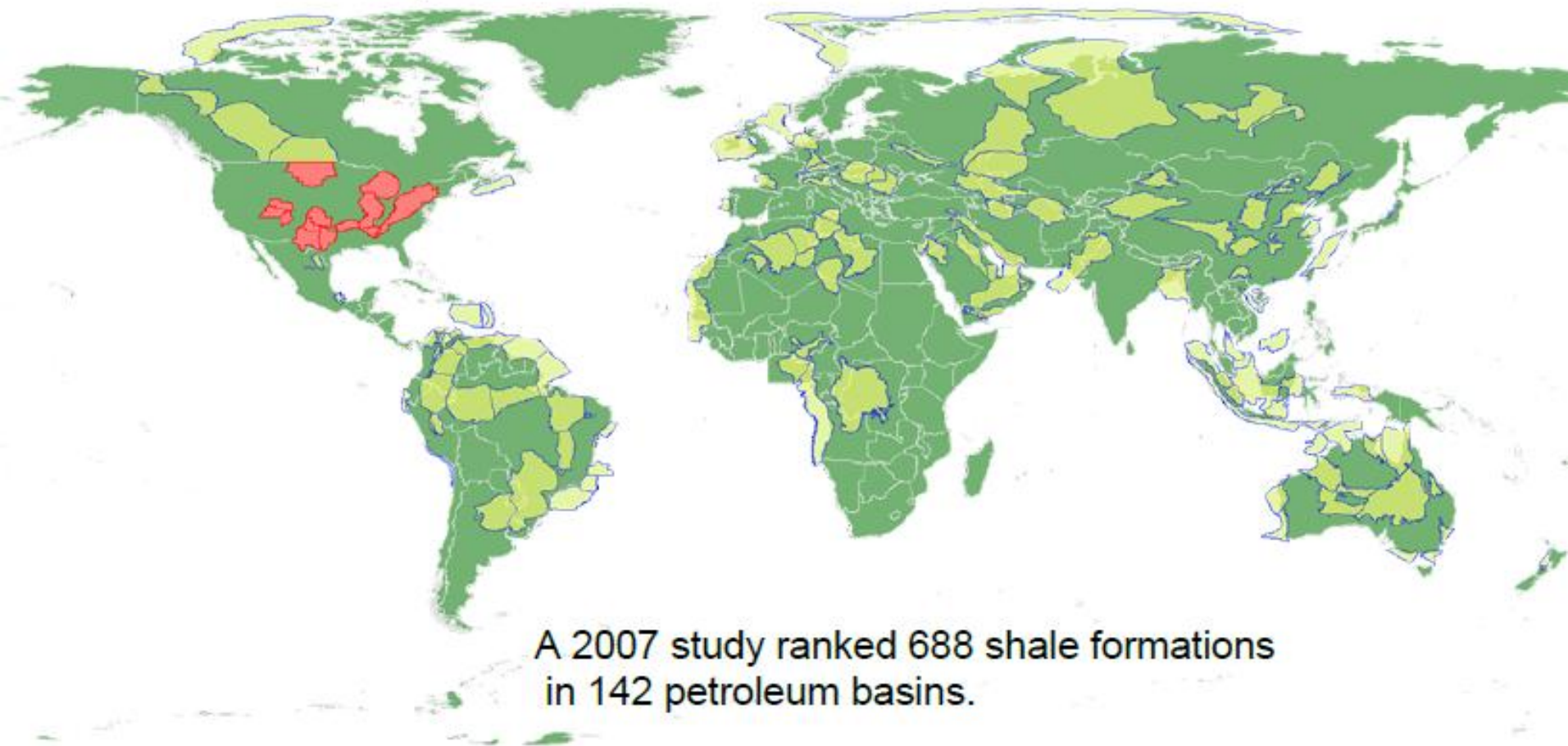
Total U.S. Working Gas in Storage



Estimated Recoverable NG For Select Shale Basins (TCF)



Worldwide shale potential

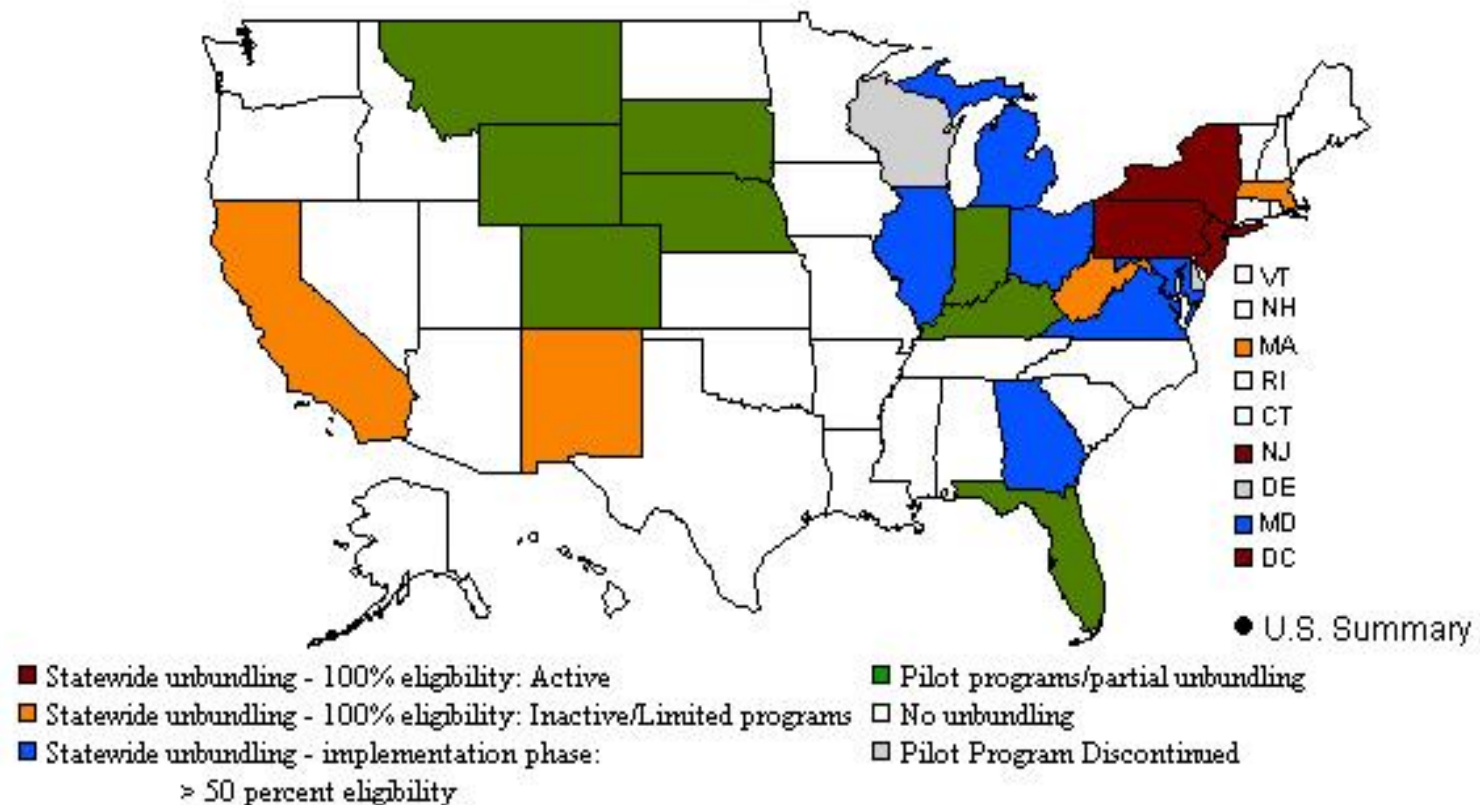


A 2007 study ranked 688 shale formations
in 142 petroleum basins.

CUSTOMER CHOICE STATES

- 21 states have some form of customer choice program for residential customers
- Some of the states lack suppliers and so customer choices are few
- Rate-regulated natural gas utility is the provider if customer does not want customer choice





Residential Natural Gas Restructuring Status

Statewide unbundling - 100 percent eligibility: Active

Statewide unbundling - 100 percent eligibility: Inactive/Limited programs

Statewide unbundling - implementation phase: > 50 percent eligibility

Pilot programs/partial unbundling

No unbundling

Pilot program discontinued

States

[DC](#), [NJ](#), [NY](#), [PA](#)

[CA](#), [MA](#), [NM](#), [WV](#)

[GA](#), [IL](#), [MD](#), [MI](#), [OH](#), [VA](#)

[CO](#), [FL](#), [IN](#), [KY](#), [MT](#), [NE](#), [SD](#), [WY](#)

[AK](#), [AL](#), [AR](#), [AZ](#), [CT](#), [HI](#), [IA](#), [ID](#), [KS](#), [LA](#), [ME](#), [MN](#), [MO](#), [MS](#), [NC](#), [ND](#), [NH](#), [NV](#), [OK](#), [OR](#), [RI](#), [SC](#), [TN](#), [TX](#), [UT](#), [VT](#), [WA](#)

[DE](#), [WI](#)

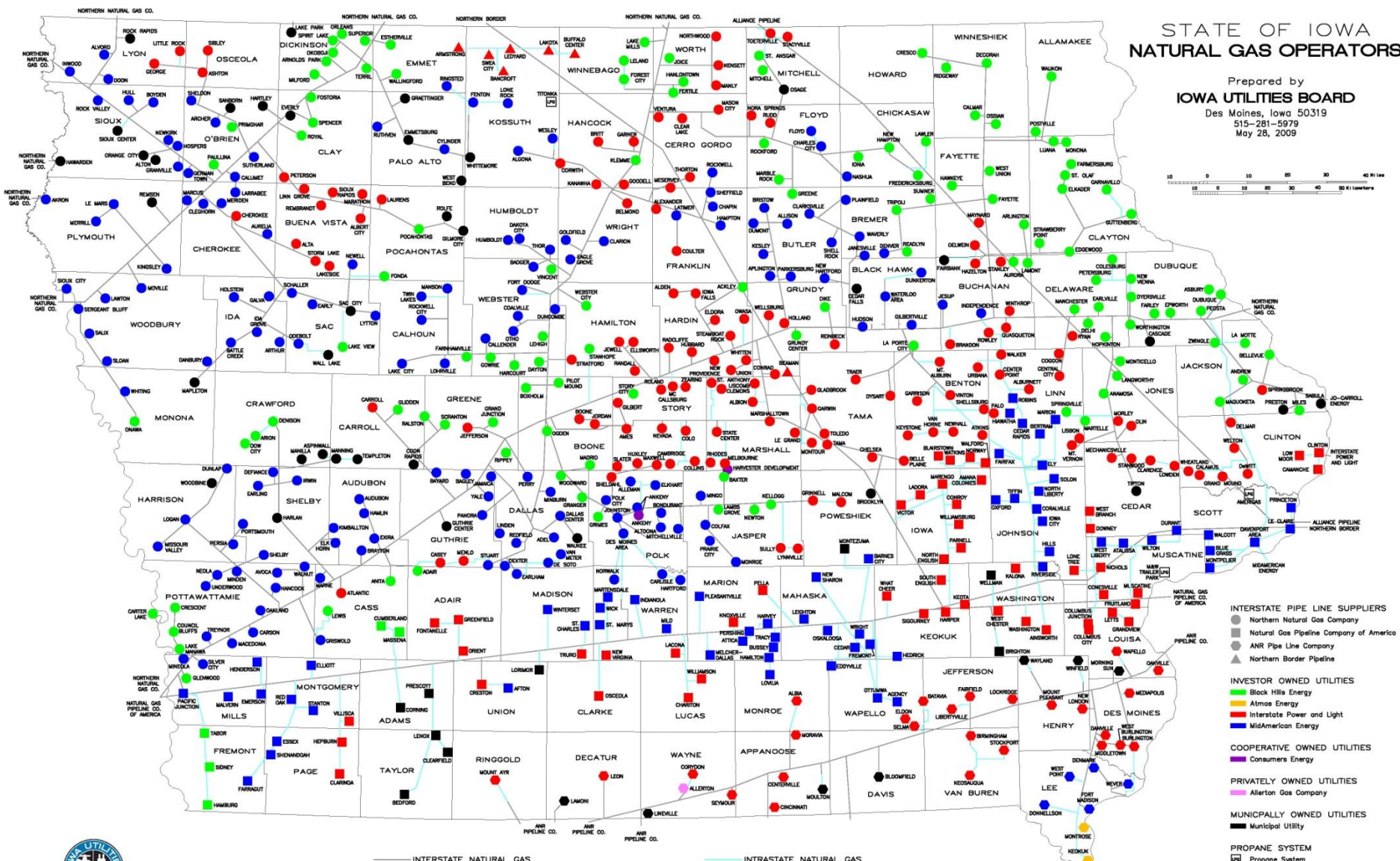
NATURAL GAS MARKET IN IOWA

- There are four rate-regulated natural gas utilities in Iowa
- There are several municipal natural gas utilities
- There are two small natural gas utilities over which the board has service jurisdiction but not rates
- There are no service areas but natural gas utilities usually do not compete because of cost of pipelines



STATE OF IOWA NATURAL GAS OPERATORS

Prepared by
IOWA UTILITIES BOARD
Des Moines, Iowa 50319
515-281-5979
May 28, 2009



copyright © 2009

QUESTIONS?



Cecil Wright
Iowa Utilities Board
cecil.wright@iowa.gov

NARUC Energy Regulatory Partnership Program
The Public Services Regulatory Commission of Armenia
and The Iowa Utilities Board