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VECTRA BANK[®]
COLORADO

Colorado's Energy Economy: What is Colorado's national and global position in the energy economy?

Wednesday, April 9, 2014



Vectra Bank Colorado, NA
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COLORADO'S ENERGY ECONOMY

What is Colorado's national and global position in the energy economy?

Wednesday, April 9, 2014



WELCOME

Bruce Alexander
President & CEO
Vectra Bank Colorado

Mark Williams
Senior Member
Sherman & Howard



SPEAKER INTRODUCTION

Mark Williams
Senior Member
Sherman & Howard

TOM CLARK

Chief Executive Officer, Metro Denver Economic Development Corporation and Executive Vice President, Denver Metro Chamber of Commerce

- More than 30 years of economic development experience at the state, regional, county and city levels.
- Career spans four decades from Director of Commercial and Industrial Development for the Illinois Department of Commerce and Community Affairs through positions with numerous chambers of commerce across the metro area.
- Holds bachelors degrees in speech and psychology from Minnesota State University and a Masters in Public Administration from the University of Illinois.
- Founder and first president of the Metro Denver Network, the Metro Denver region's first economic development program.
- Recipient of the Arthur D. Little Award for Excellence in Economic Development and chosen as one of the nation's top economic development professionals by the Council on Urban Economic Development.





Metro **Denver**
Economic Development Corporation

COLLABORATION AND CLUSTER DEVELOPMENT – BUILDING A COMPETITIVE ECONOMY

Tom Clark

CEO

Metro Denver Economic Development Corporation

Business for Breakfast – Vectra Bank



“Companies don’t locate in cities.
They locate in ‘places’.”

“Where **custom** fails, **law** prevails.”

“Laws are sand, **customs are rock**. Laws can be evaded and punishment escaped but an openly transgressed **custom** brings sure punishment.”

-Mark Twain-

Our Mission

- Assist primary employers to locate and expand in the nine-county Metro Denver region
- Serve as the primary global marketing organization for new jobs in Metro Denver
- Provide economic development services to our partners that they cannot afford themselves including:
 - Massive data bases, regional web site with GIS, econometric models, full-time economist, trade and prospect missions, increased air service
- Provide “first money in” for major economic opportunities for the region or to fight back the “Forces of Darkness”
- Promote, support and assist in creating a “culture of cooperation” in economic development throughout the region and the State of Colorado

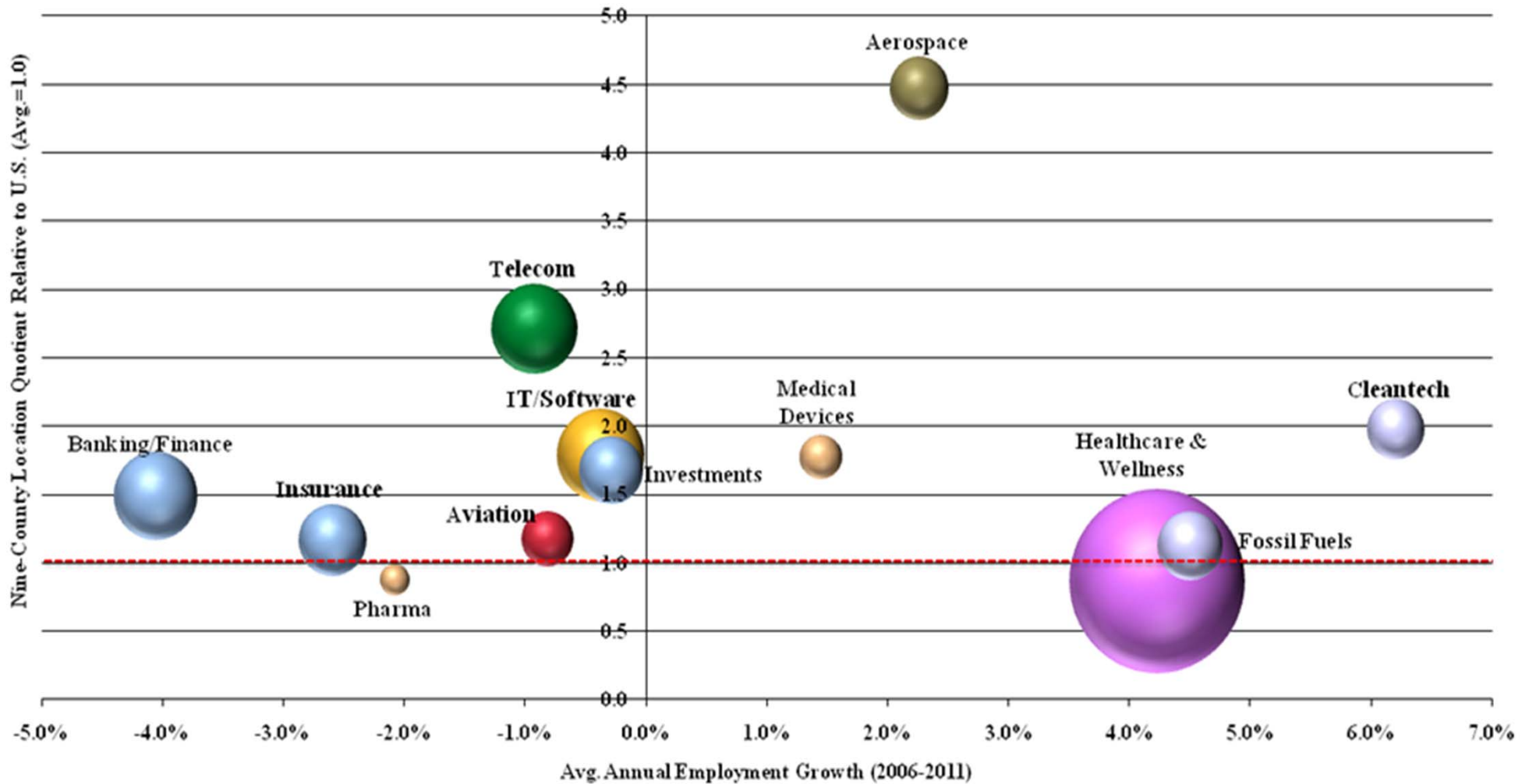
Some History

- A major recession – 1982 – Oil shale collapses when Saudis turn on the tap. “Balkanized cities” – cutthroat economic development, stealing companies from each other, speaking “ill” of one another
- Chasing prospects so vigorously that we chased them to Scottsdale, Dallas and Kansas City
- Determined to “sell our region in the manner our prospects saw us – not a series of cities and counties, by a “place” called “Denver”

Seeing the world through the lens of employment clusters...Dr. Michael Porter's work

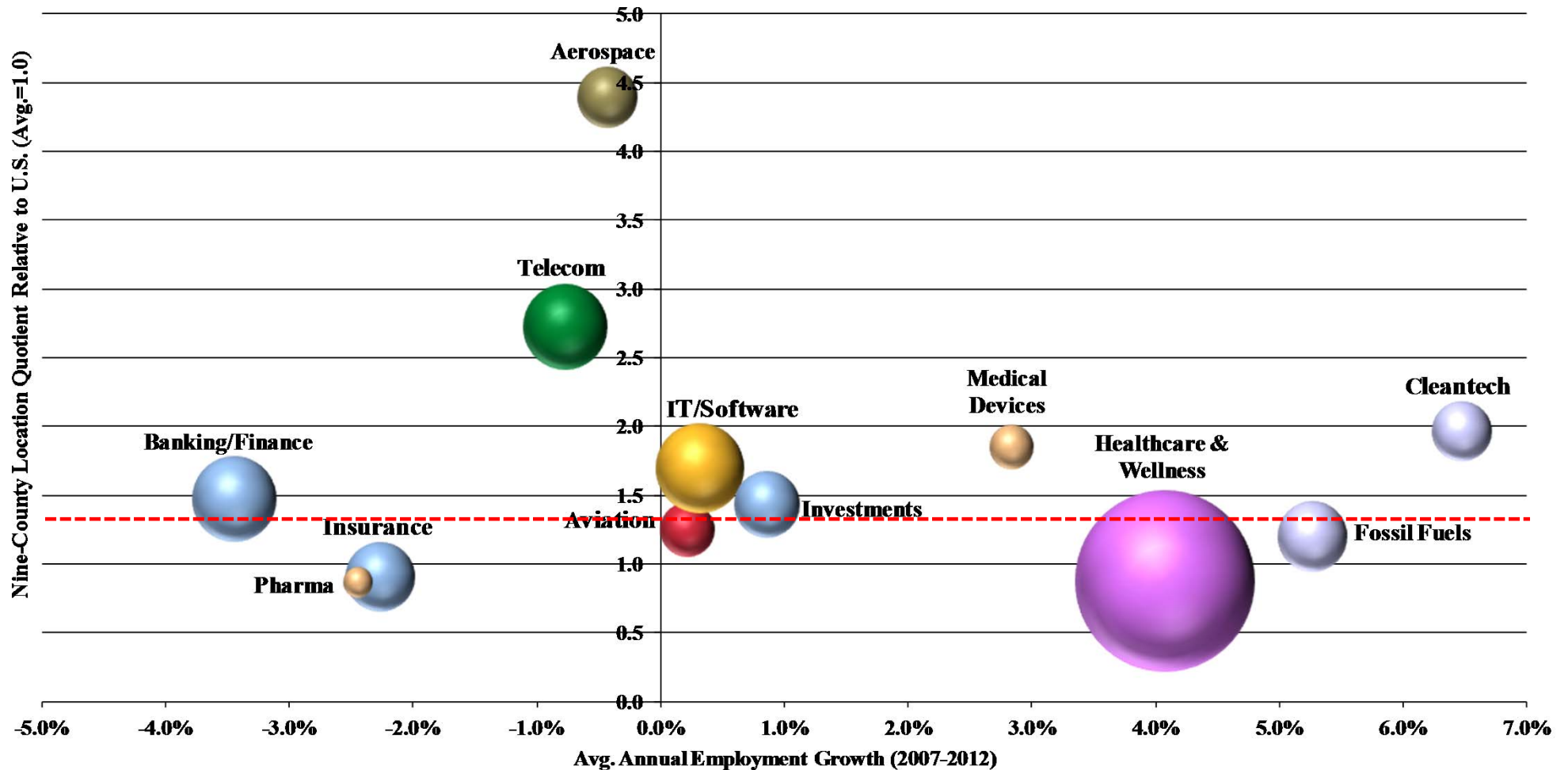
- Companies “cluster” to exploit a resource – oil, labor, water, research and development access...
- Most competitors identify their clusters' competitive advantage and then chase companies within them.
- We see the economy through the eyes of our clusters...this drives differentiated decisions on everything from tax and regulatory policy to major infrastructure projects.
- “If you don't know where you are going, any consultant will take you there.”

Innovation Clusters in Metro Denver

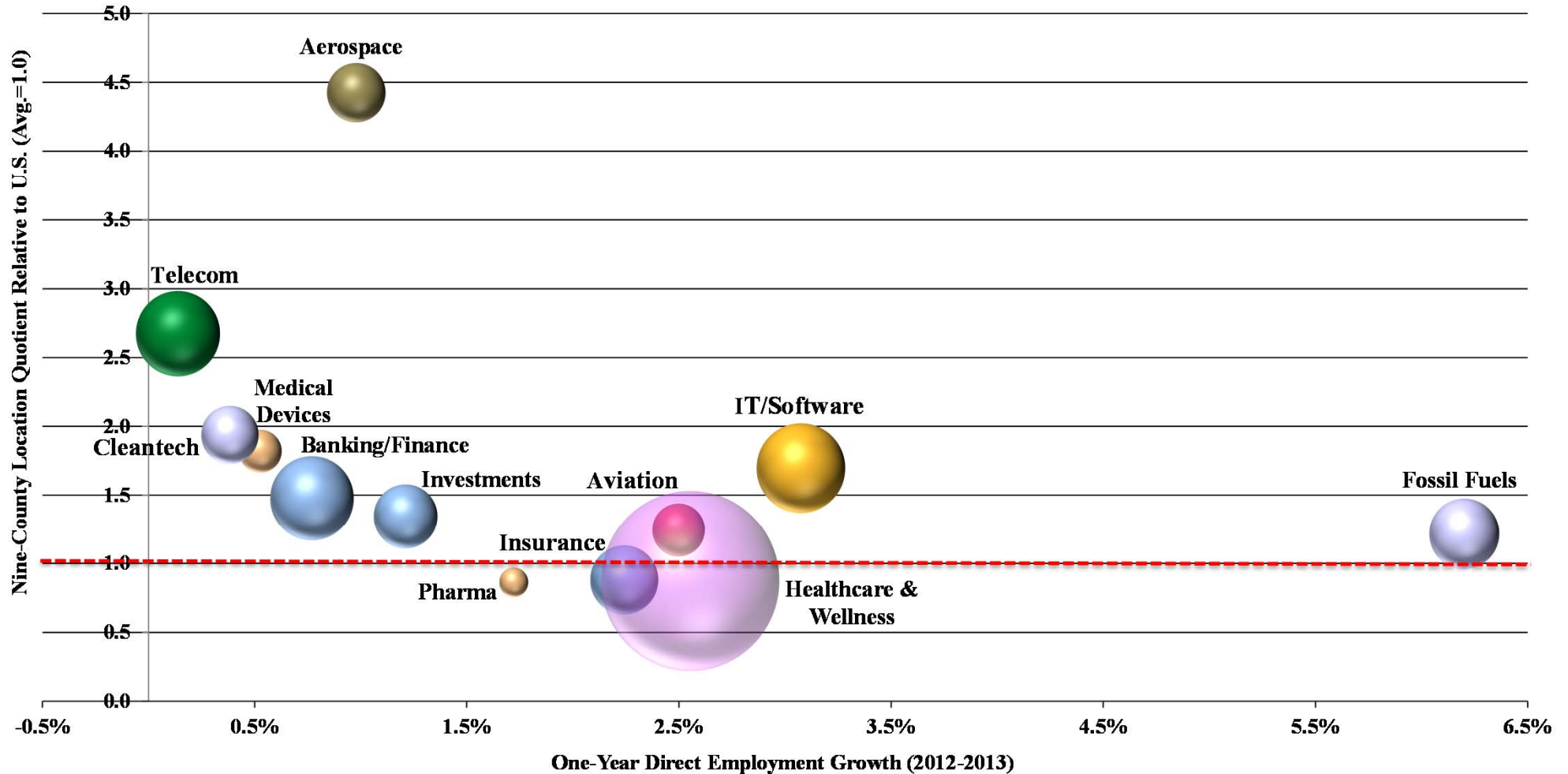


Metro Denver Industry Clusters

2007 - 2012



Metro Denver Industry Clusters 2013



Cluster Advocacy Groups Drive New Jobs

C3

Aerospace

Energy

Aviation

Bioscience

IT

Space
Coalition

CO
Energy
Coalition

Metro Denver
Aviation
Coalition

CBSA

CTA

Does cooperative economic development work?

- 1985 – 30% closure rate
- 2011 – 52% closure rate
- Eliminating “cognitive dissonance” among customers increases our ability to beat out competitors
- Examples: Vestas, Arrow Electronics, DaVita, Charles Schwab and many, many others

Does “cluster” strategy work?

- 80% of locations in past eight years have come from cluster companies
- Over 60% of expanding or relocating companies have been within clusters



SPEAKER INTRODUCTION

Kirk Monroe

EVP, Director of Wholesale Banking
Vectra Bank Colorado



SCOTT PRESTIDGE

Energy Industry Manager
Metro Denver Economic Development
Corporation (EDC)

- Focuses on economic development, policy formation, and management of the in-house energy trade association, the Colorado Energy Coalition.
- Formerly worked as the Metro Regional Director for U.S. Senator Mark Udall.
- Bachelor's Degree in Political Science and a Bachelor's Degree in Spanish from the University of Colorado in Boulder, as well as a Master's Degree in Public Policy from the University of Colorado in Denver.





Resource Rich Colorado

Colorado's National and Global Position in the Energy Economy

Fifth Edition, December 2013



COLORADO ENERGY COALITION

Resource Rich Colorado

Acknowledgements

Competitive Analysis Committee Members

Chris Hansen, IHS, Committee Chair

John Armstrong, Enserca LLC

Tim Bennet, Flood and Peterson

Beth Chacon, Xcel Energy

Larry Holdren, Pure Brand Communications

Brian Payer, IHS Corporation

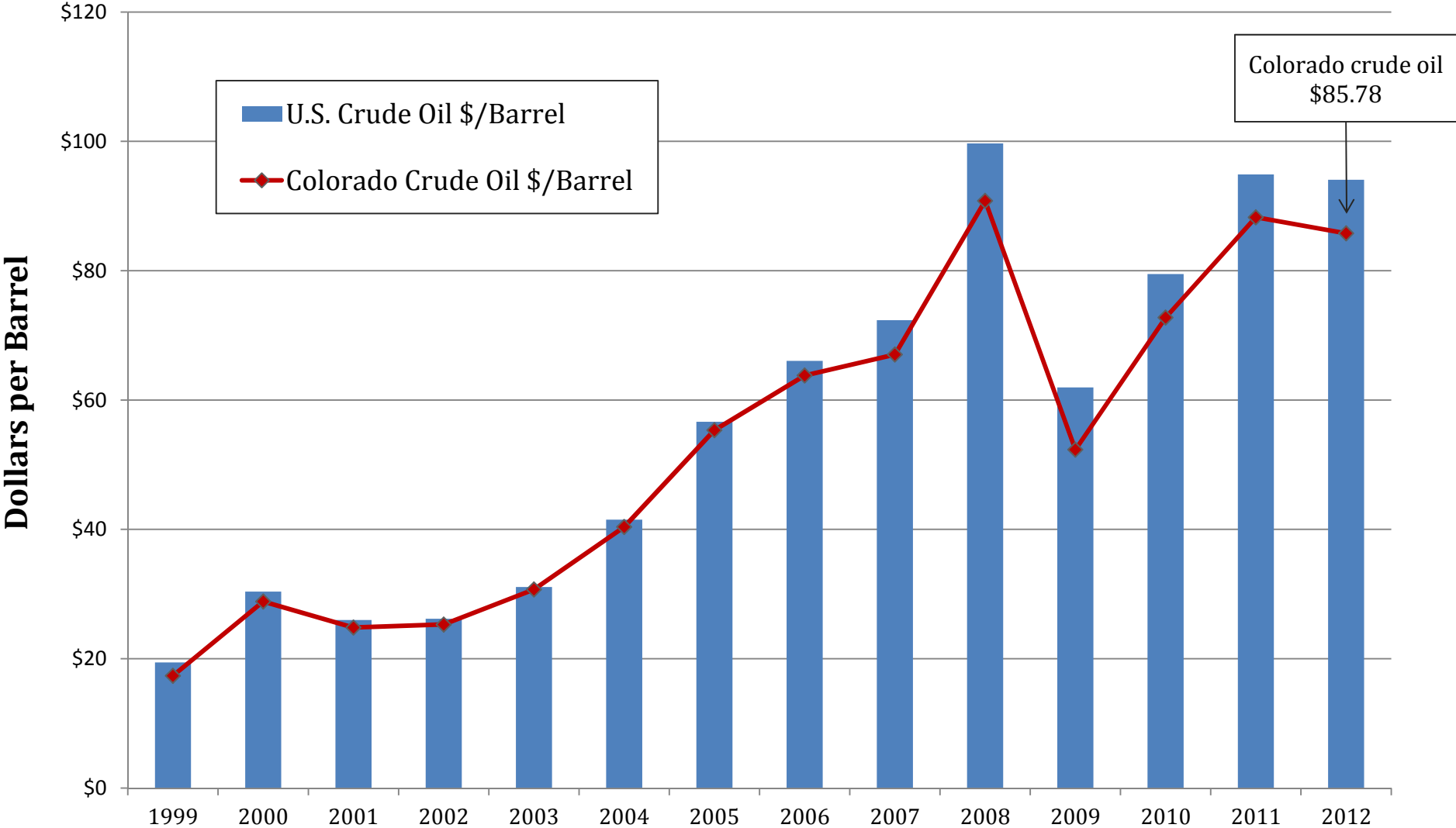
Michael Pomorski, Encana Corporation

Oil



Crude Oil Prices, 1999-2012

Prices for Colorado-produced oil trend below the national average;
U.S. average price in 2012 was \$94.05 per barrel

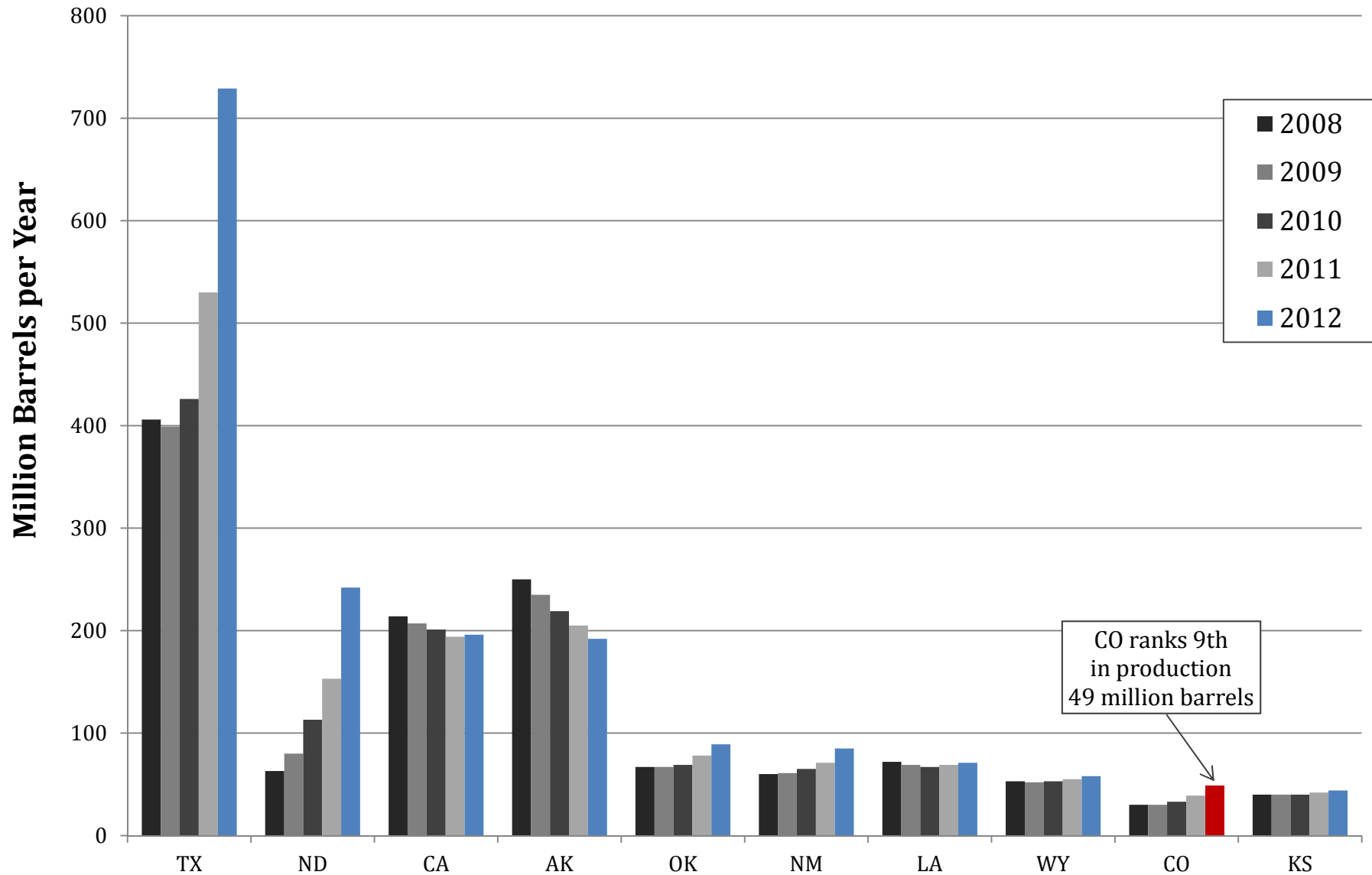


Source: U.S. Department of Energy, OK-WTI, Energy Information Administration
Note: Crude oil includes lease condensate recovered as liquid from natural gas wells

Fig. 1

Crude Oil Production by State, 2008-2012

Colorado ranks 9th in crude oil production; Colorado production is on the rise



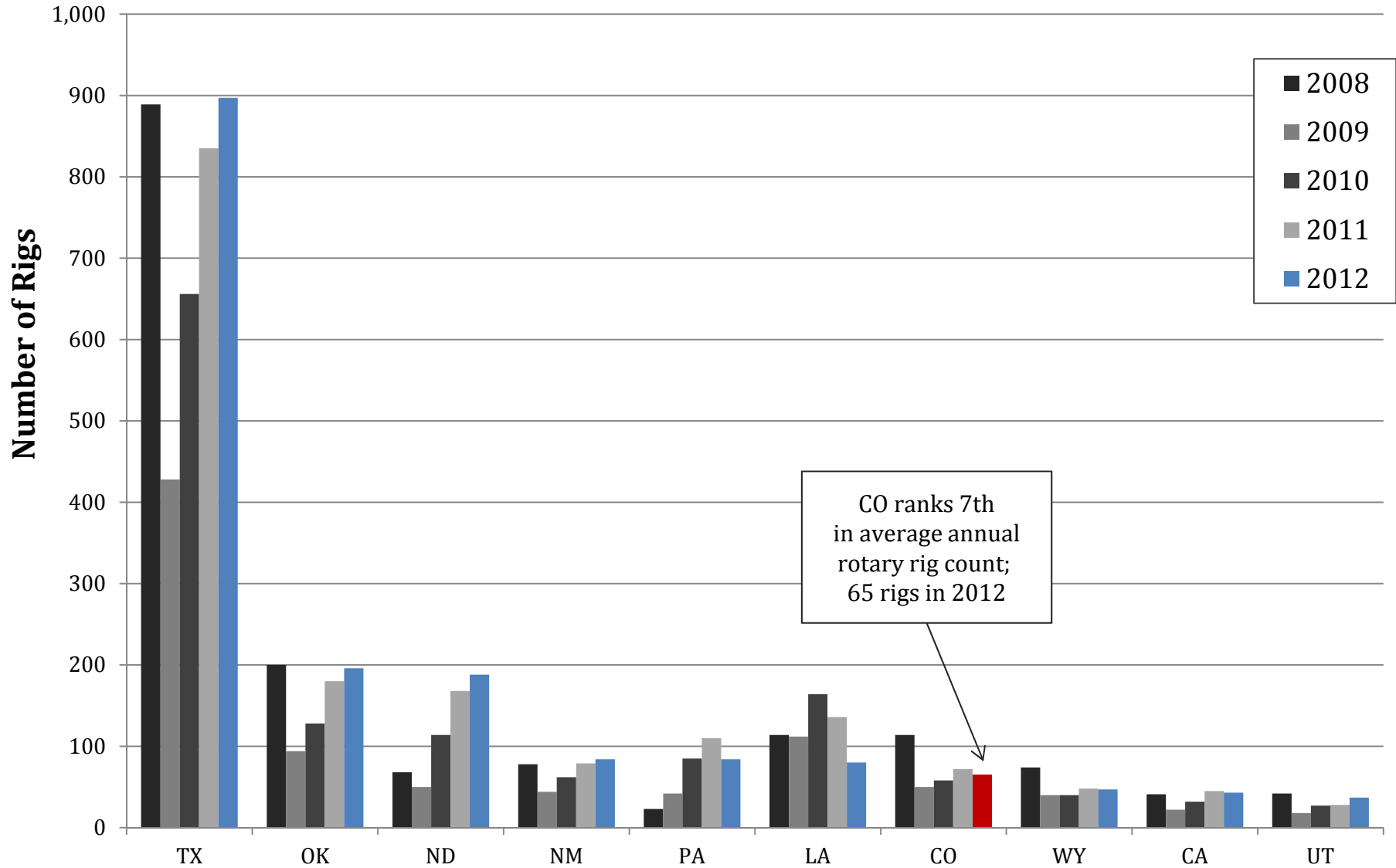
Source: U.S. Department of Energy, Energy Information Administration

Note: Crude oil includes lease condensate recovered as liquid from natural gas wells

Fig. 2

Rotary Rig Count, 2008-2012

DJ-Niobrara formation driving Colorado rotary rig count activity; 2,301 new wells were drilled in 2012; as of October 2013 there were 51,426 active wells in Colorado

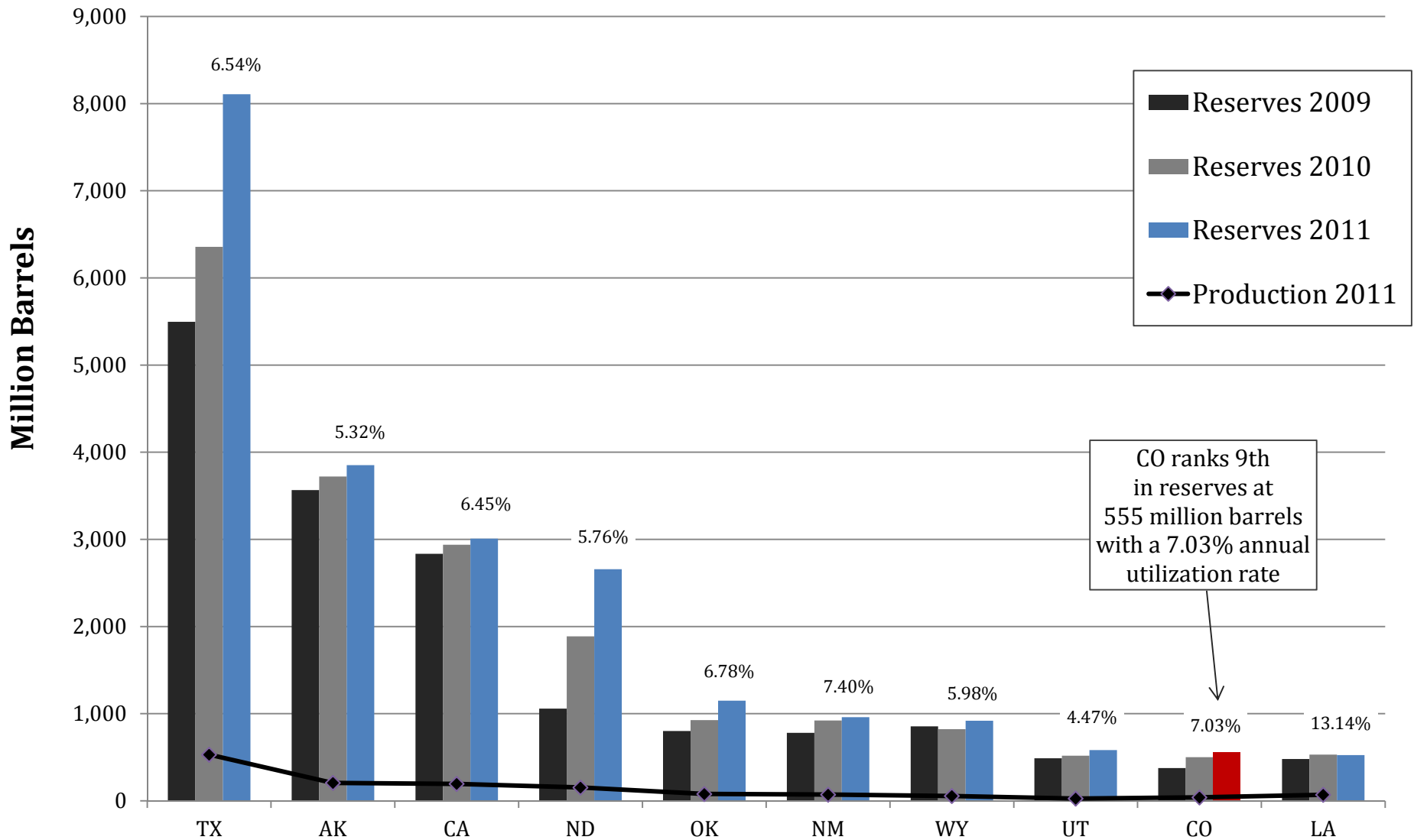


Source: Baker Hughes; Colorado Oil and Gas Conservation Commission
 Note: Number of rigs is annual average

Fig. 3

Crude Oil Reserves & Utilization Rate

Technology improvements contribute to growing reserves

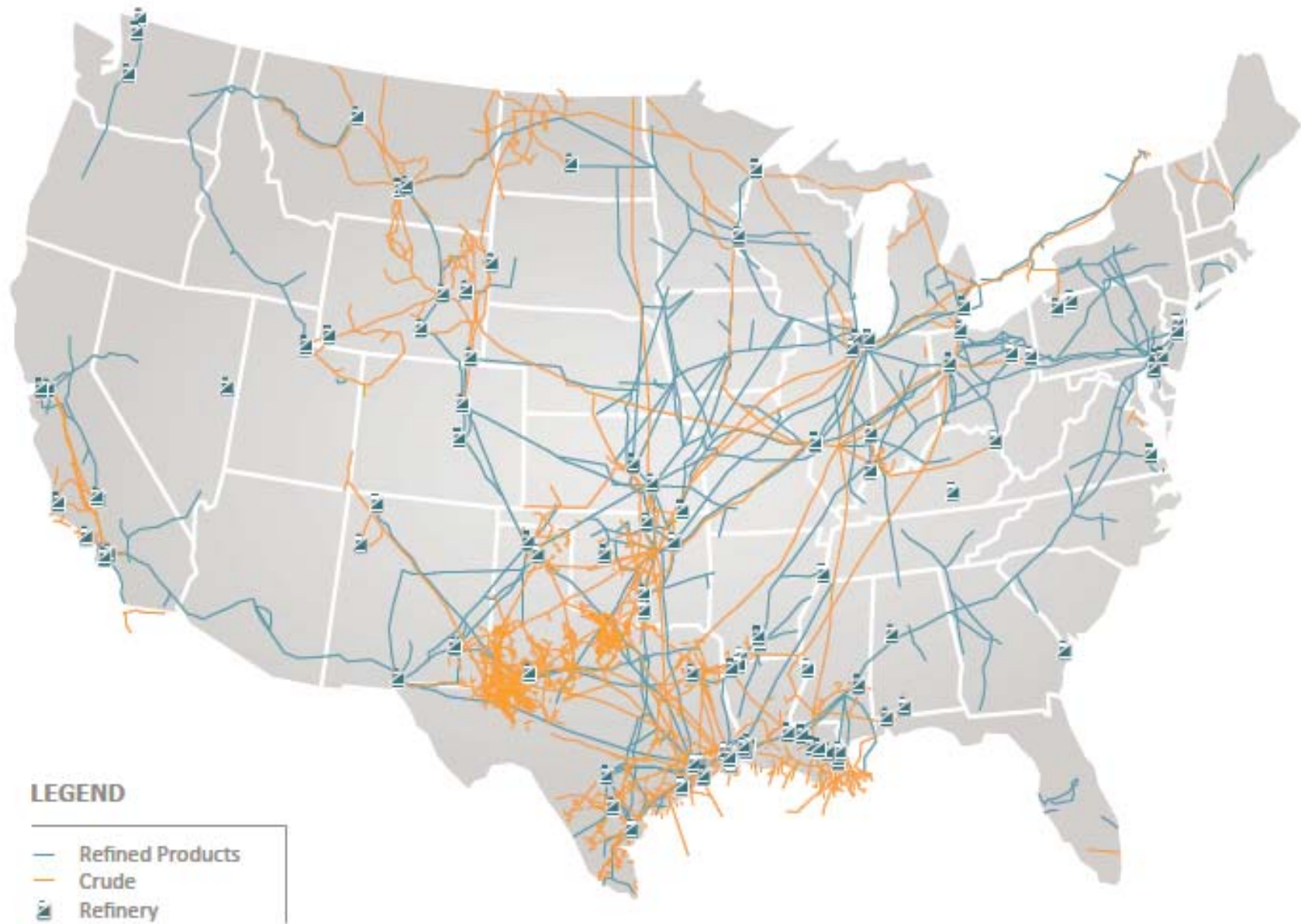


Source: U.S. Department of Energy, Energy Information Administration

Note: Utilization rate is the amount of reserves developed/produced annually; crude oil reserves include lease condensate

Fig. 4

Map of Crude Oil and Refined Products Infrastructure

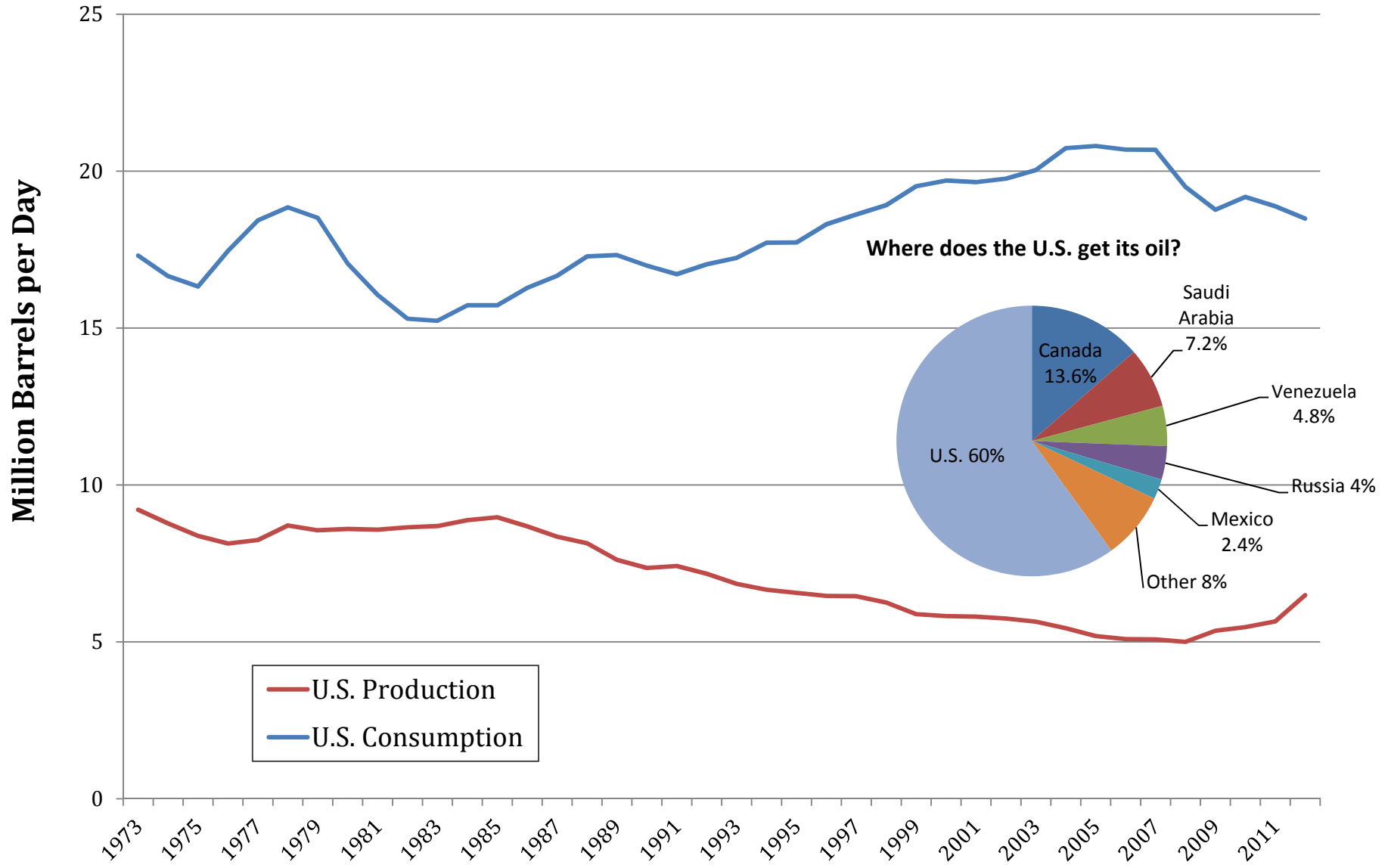


Source: American Energy Mapping (AEM) 2013

Fig. 5

U.S. Crude Oil Production & Consumption, 1973-2012

Gap is narrowing; domestic production increasing since 2009;
domestic consumption decreasing since 2006

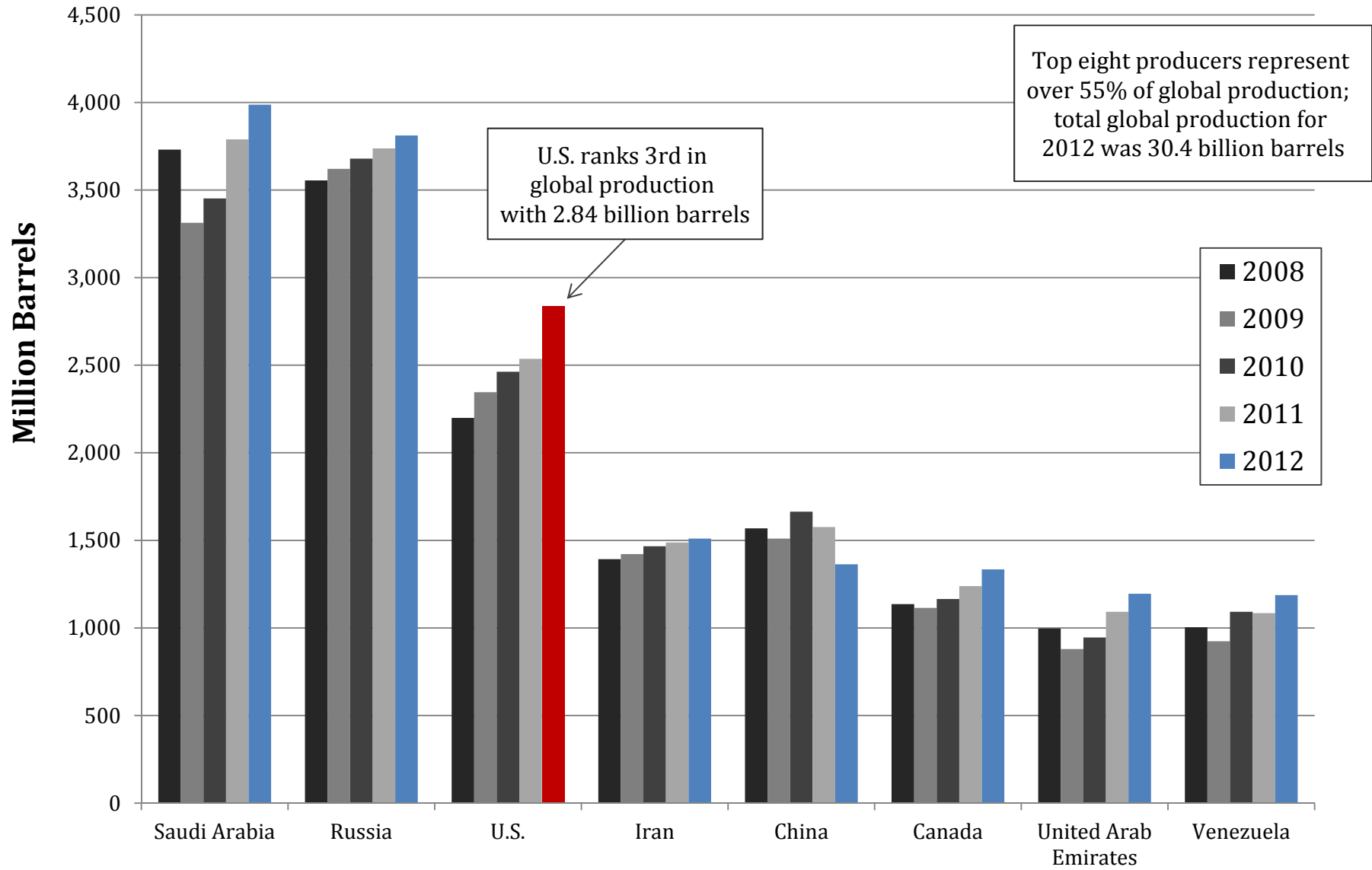


Source: U.S. Department of Energy, Energy Information Administration

Fig. 6

Oil Production Leaders, 2008-2012

U.S. ranks 3rd in production; domestic production on the rise

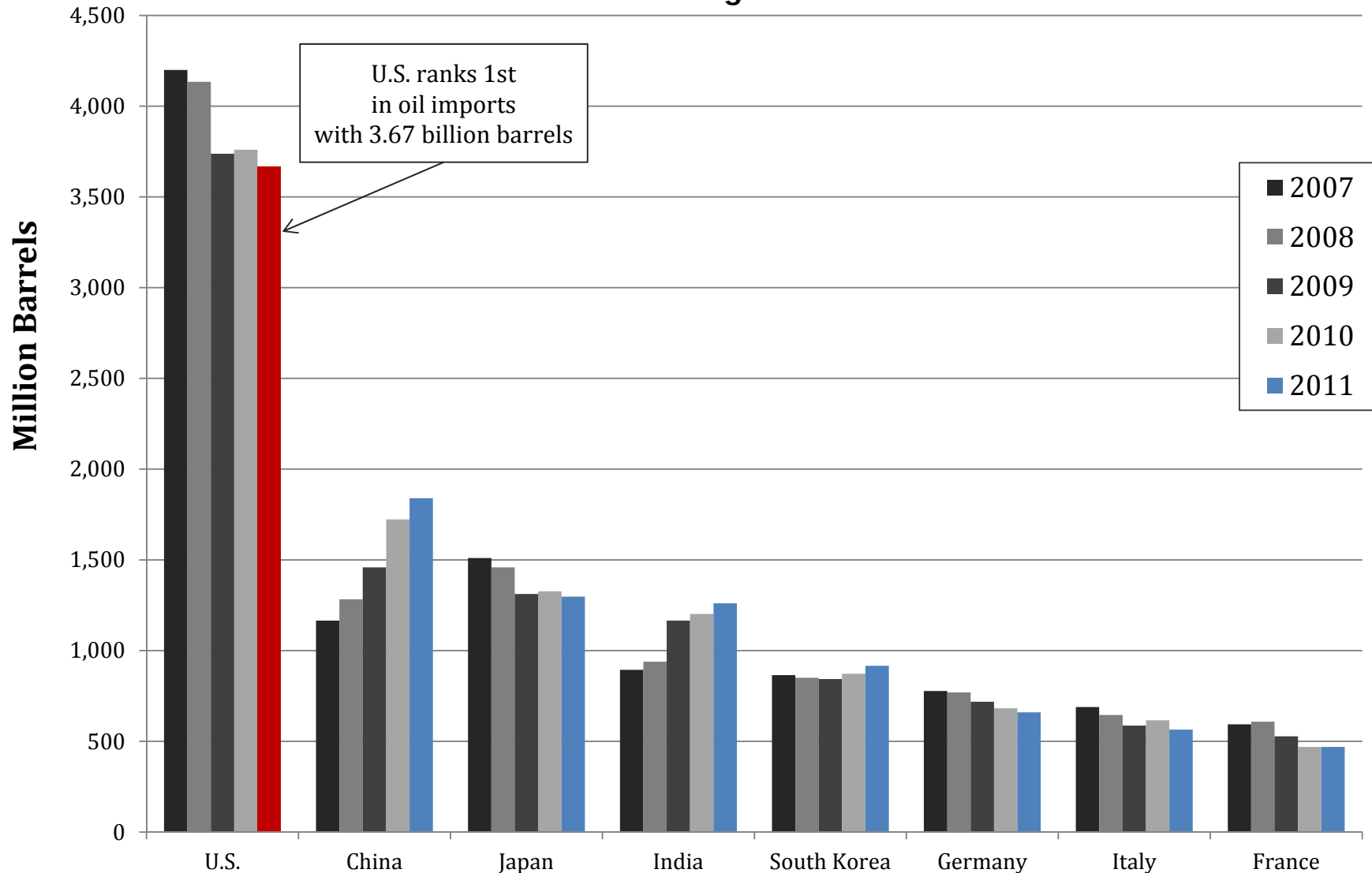


Source: International Energy Agency, 2009-2013 Key World Energy Statistics
 Note: Includes crude oil, natural gas liquids, feedstocks, additives, and other hydrocarbons

Fig. 7

Top Net Importers of Crude Oil, 2007-2011

U.S. ranks 1st in oil imports; imports are decreasing and 2012 was lowest annual average since 1991



Source: International Energy Agency, 2009-2013 Key World Energy Statistics

Note: Includes crude oil, natural gas liquids, feedstocks, additives, and other hydrocarbons

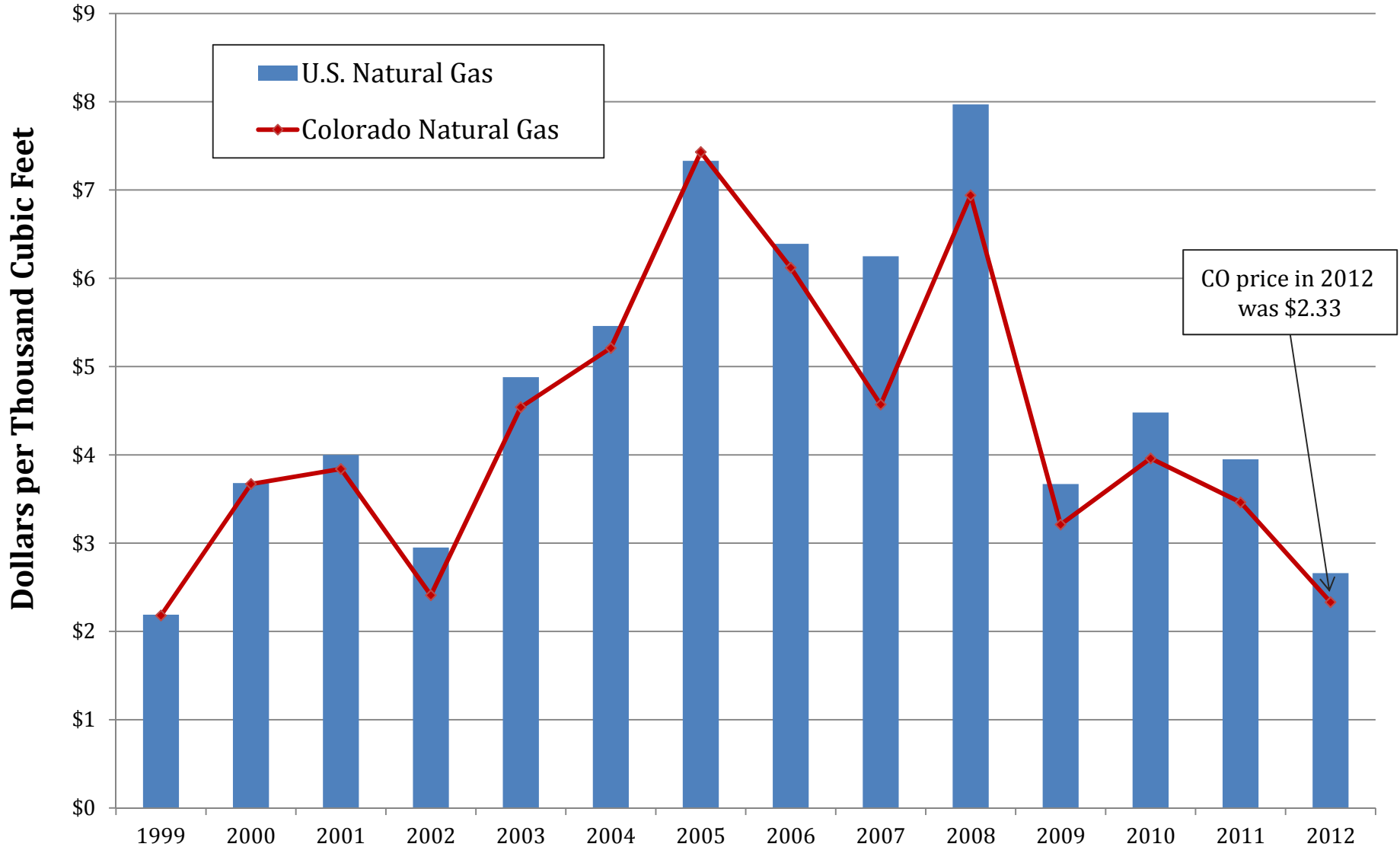
Fig. 8

Natural Gas



Natural Gas Wellhead Prices, 1999-2012

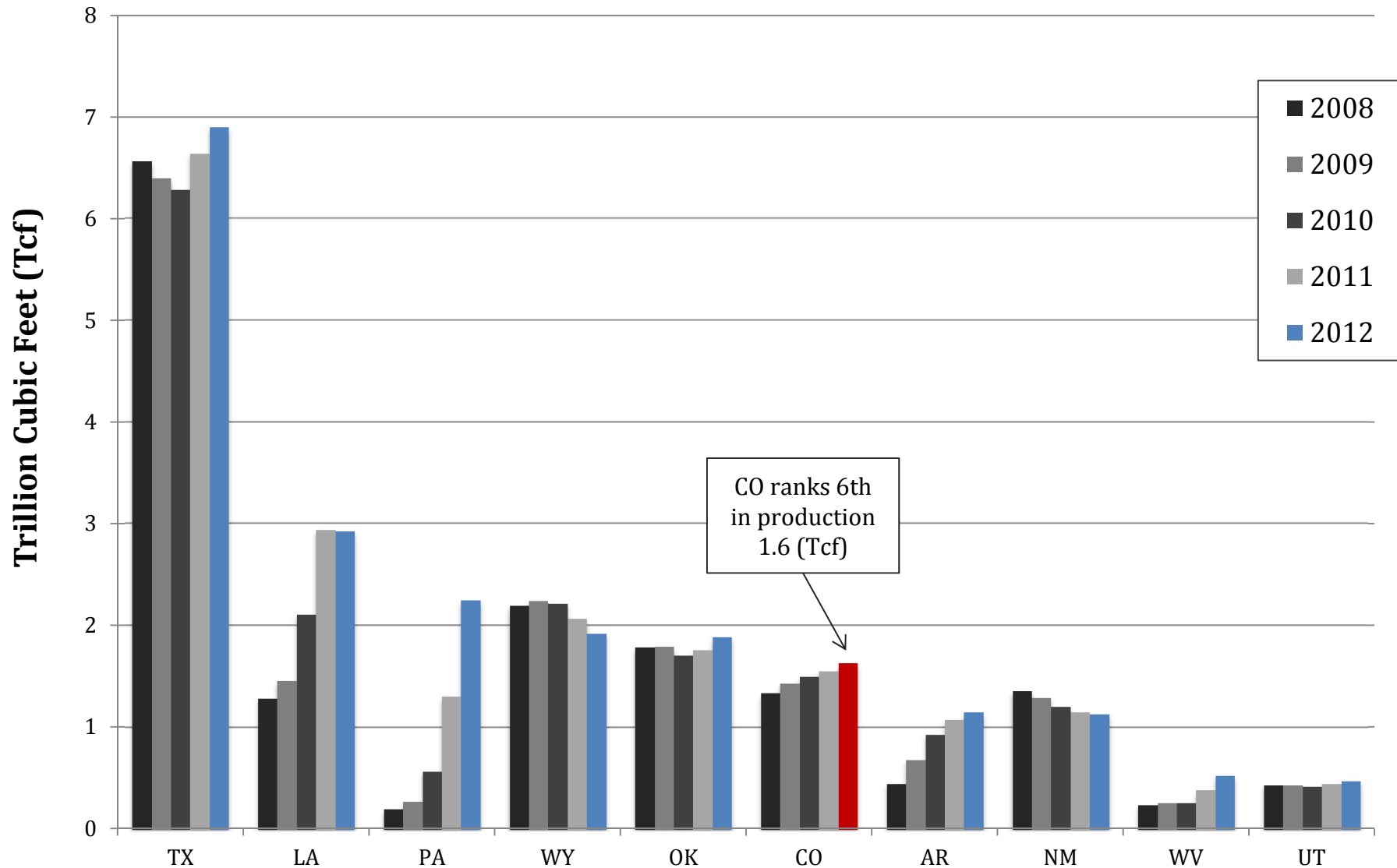
Colorado price trends below the national average
to account for fuel transportation costs to markets outside the state



Source: U.S. Department of Energy, Energy Information Administration; 2011 and 2012 CO price data estimated
Note: Transportation allowance accounts for the cost to move natural gas to markets beyond Colorado borders

Natural Gas Production by State, 2008-2012

Colorado ranks 6th in production; production is increasing due to technology improvements



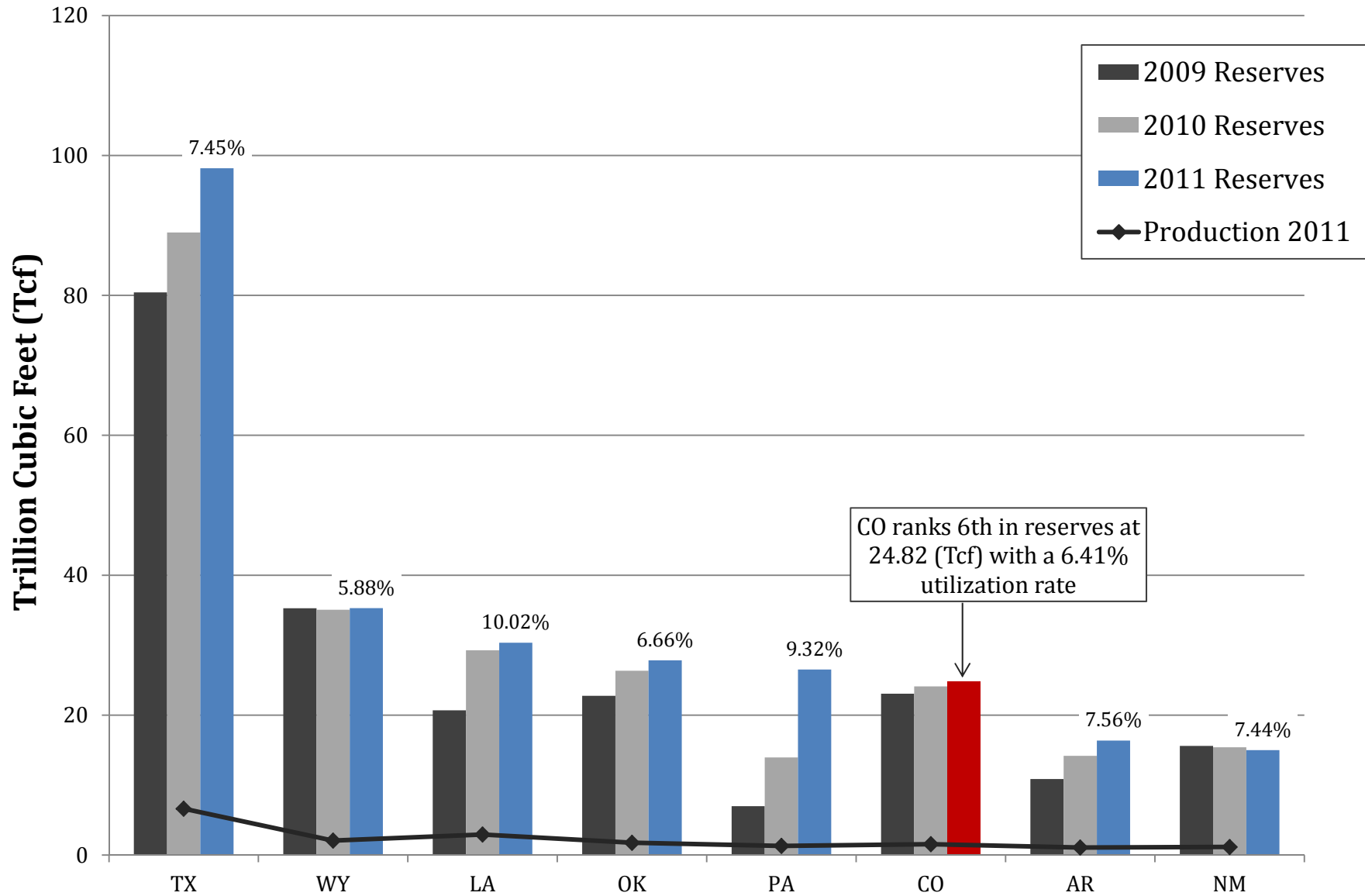
Source: U.S. Department of Energy, Energy Information Administration

Note: Top ten producers including Colorado

Fig. 10

Natural Gas Reserves & Utilization Rate

Technology is contributing to growing reserves nationwide



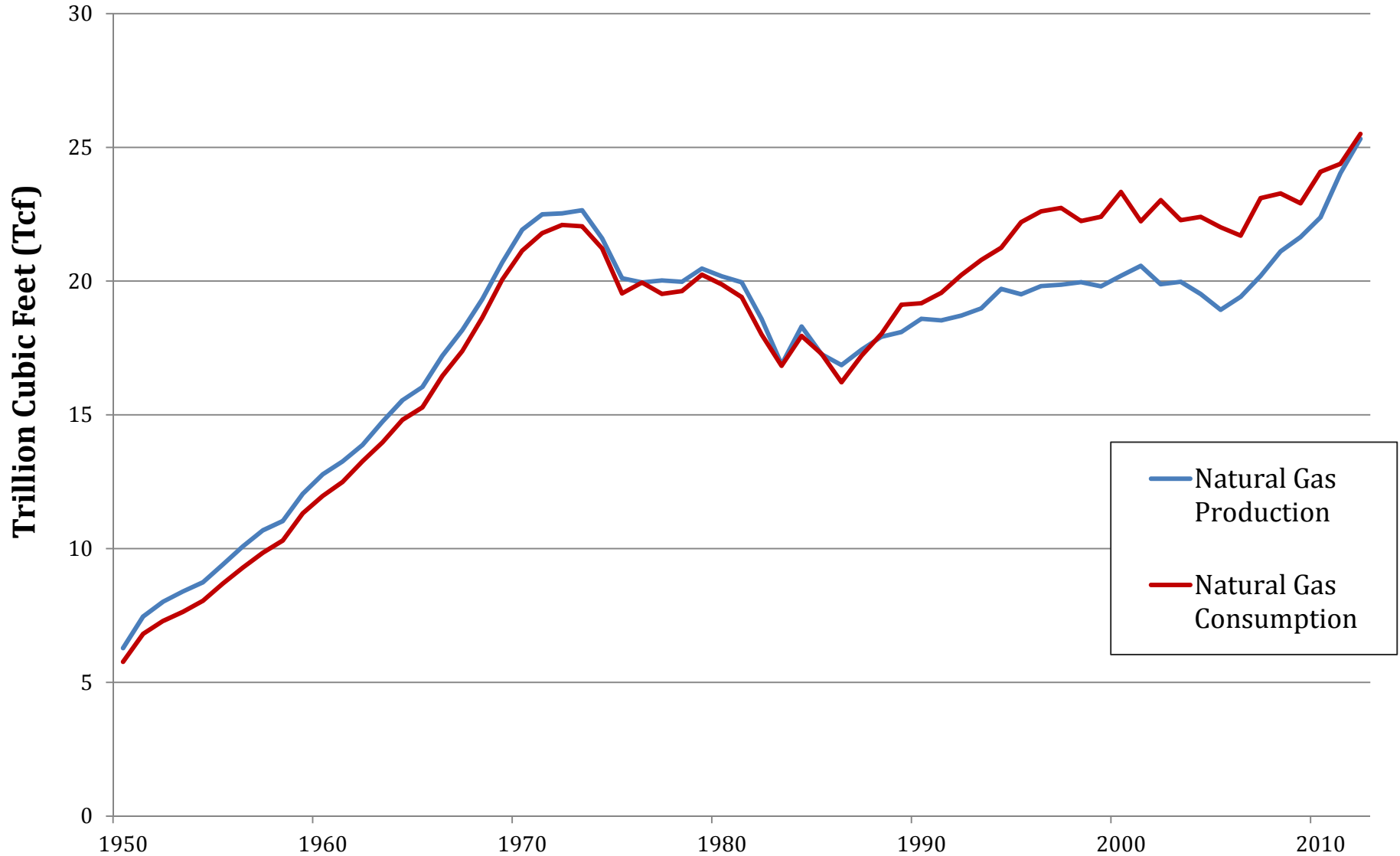
Source: U.S. Department of Energy, Energy Information Administration

Note: Top eight states including Colorado; utilization rate is the amount of reserves developed/produced annually

Fig. 11

U.S. Natural Gas Production & Consumption

Domestic production has increased steadily since 2006; low price of natural gas has increased power and industrial consumption



Source: U.S. Department of Energy, Energy Information Administration

Fig. 12

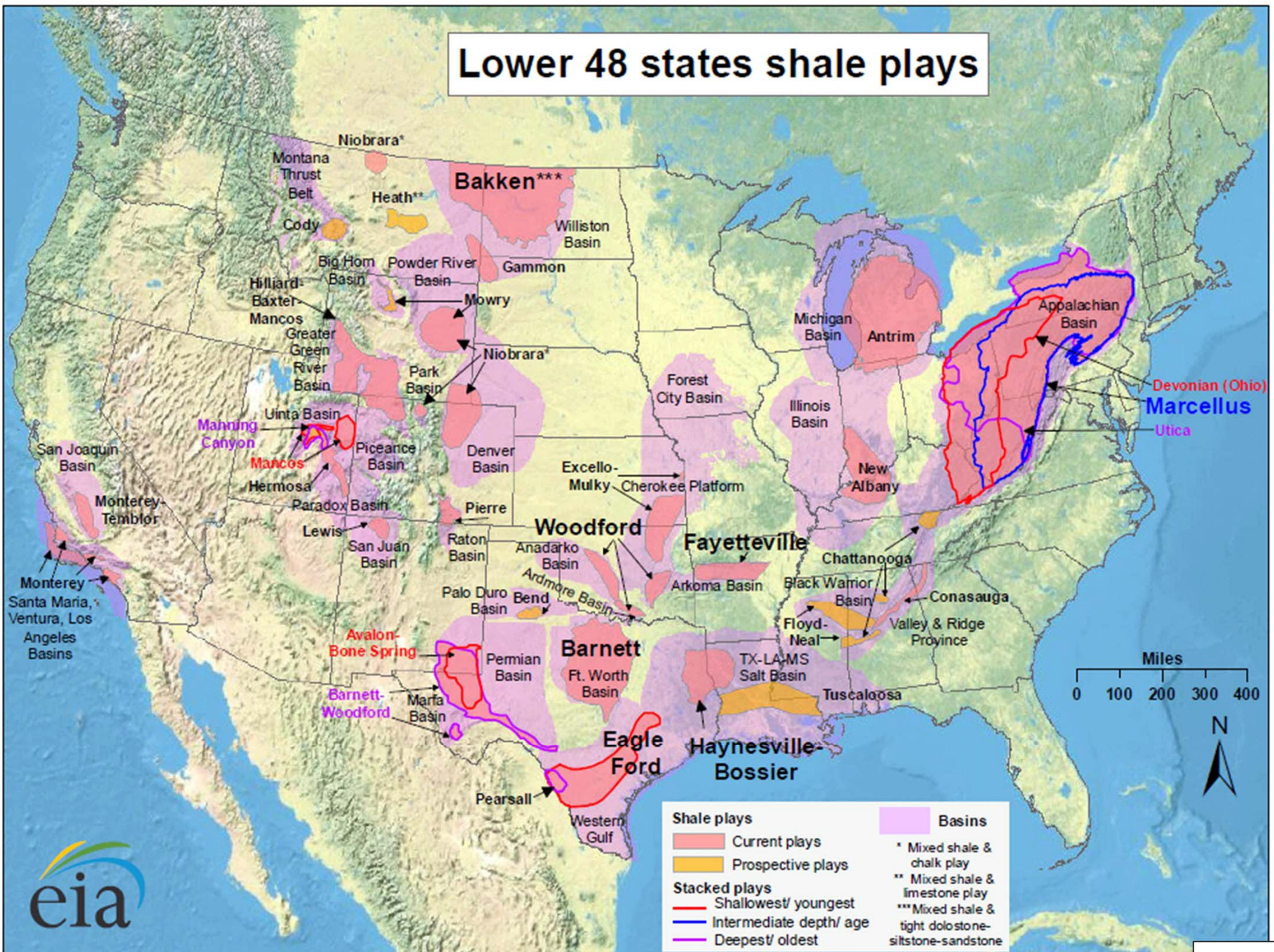
Map of Natural Gas Pipeline Infrastructure



Source: Energy Information Administration, Office of Oil & Gas Division, Gas Transportation Information System

Fig. 13

Lower 48 states shale plays

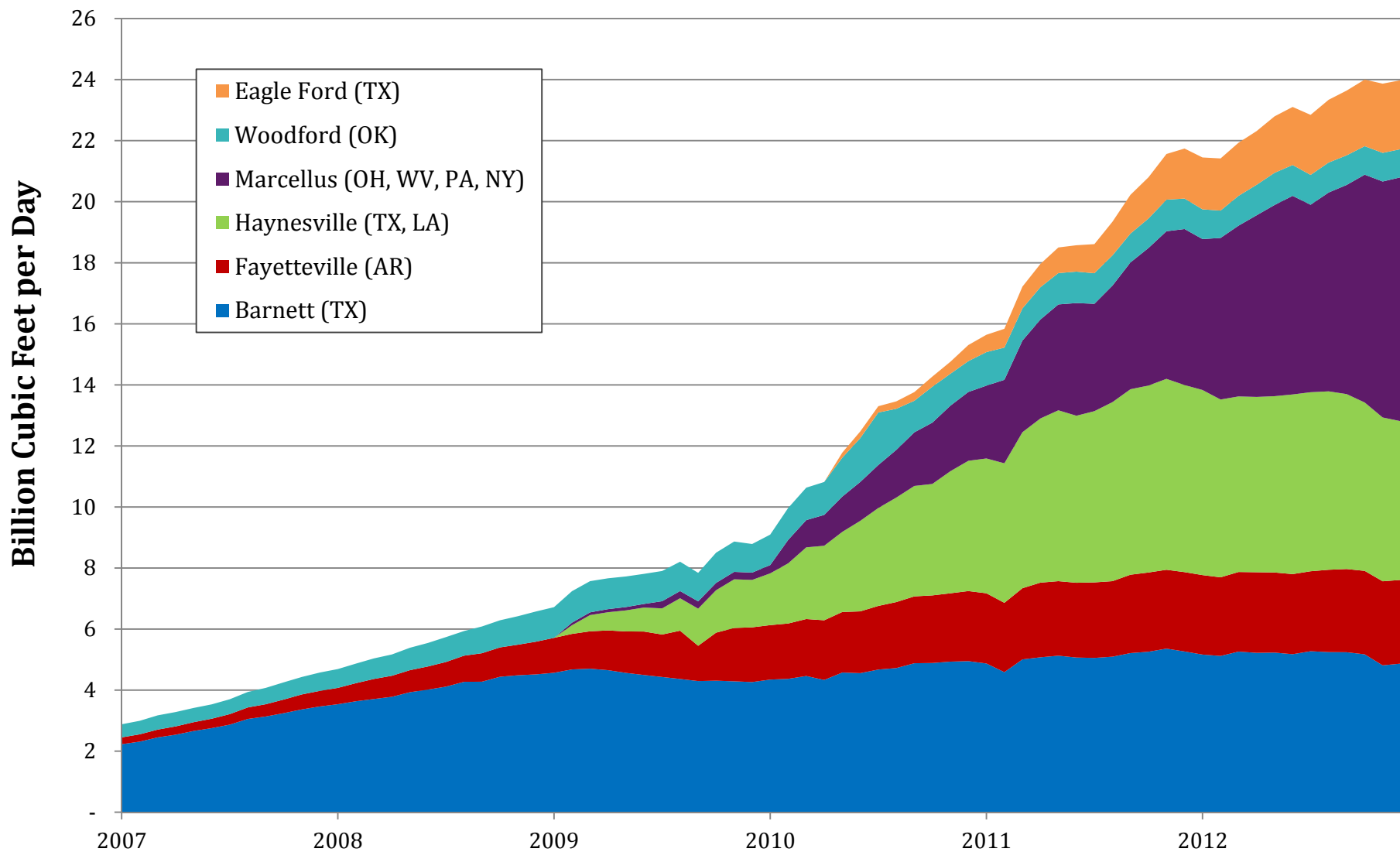


Source: Energy Information Administration based on data from various published studies.
 Updated: May 9, 2011

Fig. 14

U.S. Shale Gas Production by Major Resource Play

Technology has led to quickly expanding resource development



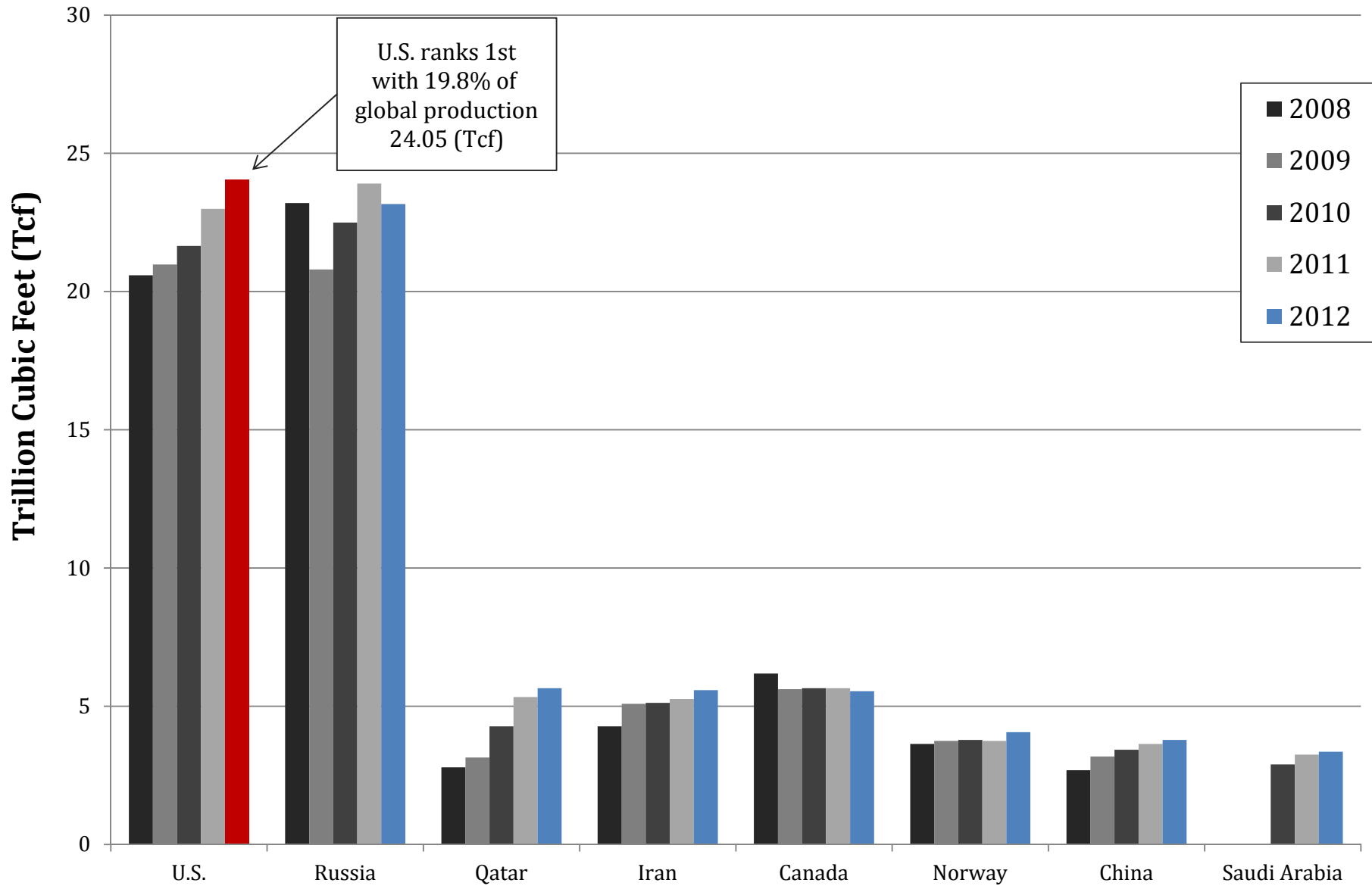
Source: HPDI; Encana Corporation

Note: Legacy production in the Niobrara makes it hard to differentiate shale resource development; 7.5 Bcf per day from Rocky Mountain Region

Fig. 15

Natural Gas Production Leaders, 2008-2012

U.S. is 1st and growing; top 8 producers equal 62.0% of global production

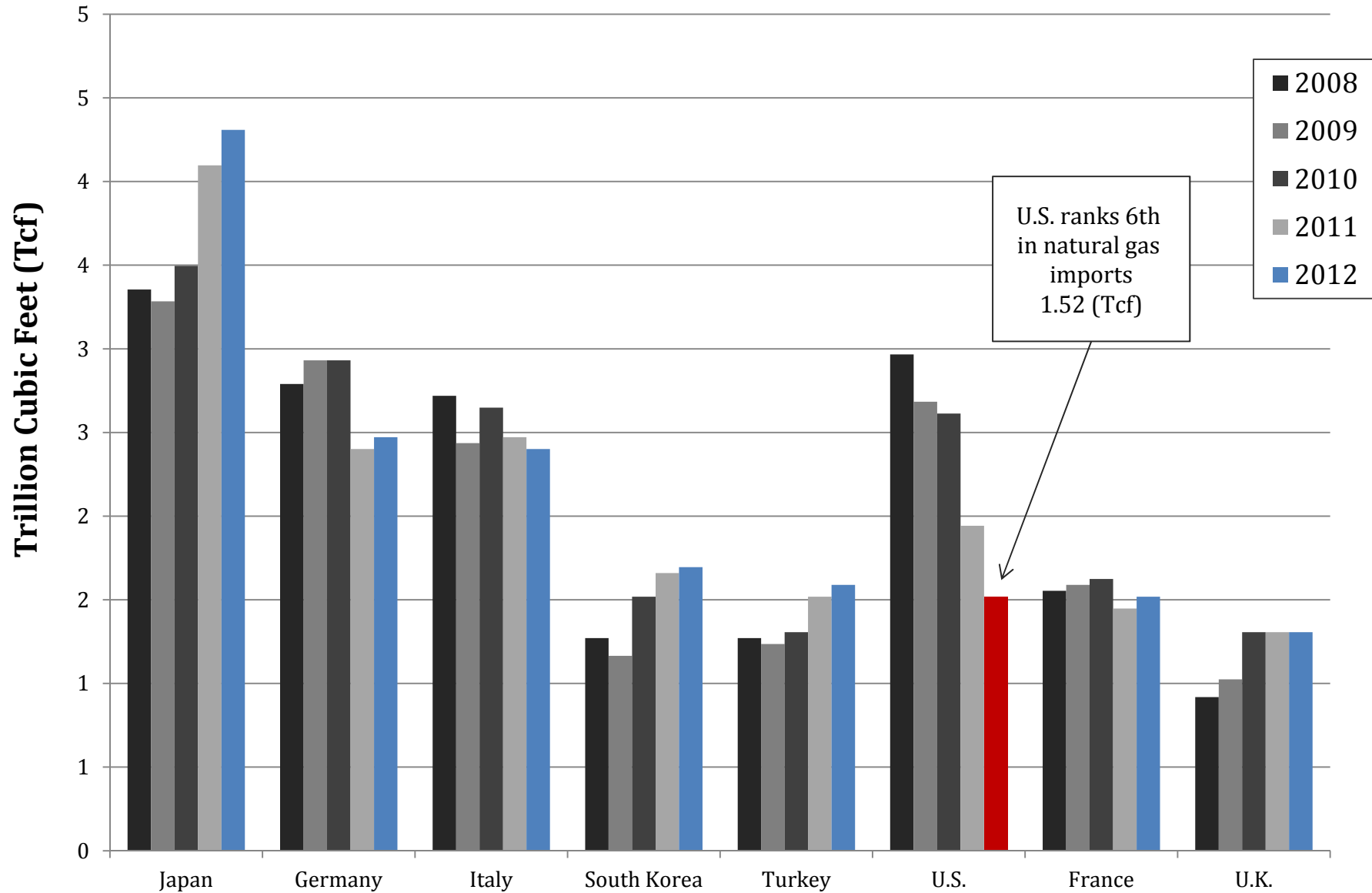


Source: International Energy Agency

Fig. 16

Top Net Importers of Natural Gas, 2008-2012

U.S. imports declining due to increases in domestic production



Source: International Energy Agency

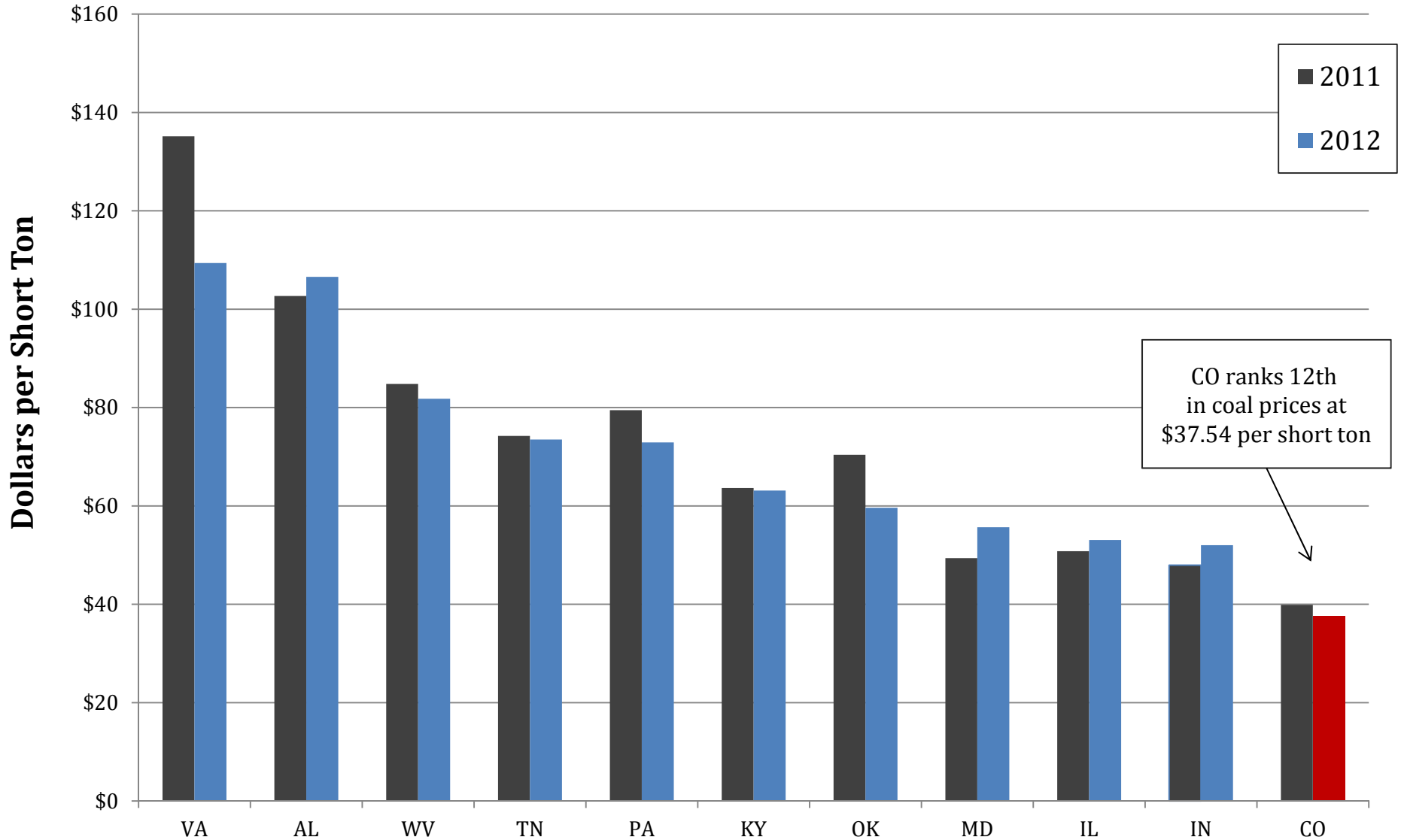
Fig. 17

Coal



Coal Prices by State, 2011-2012

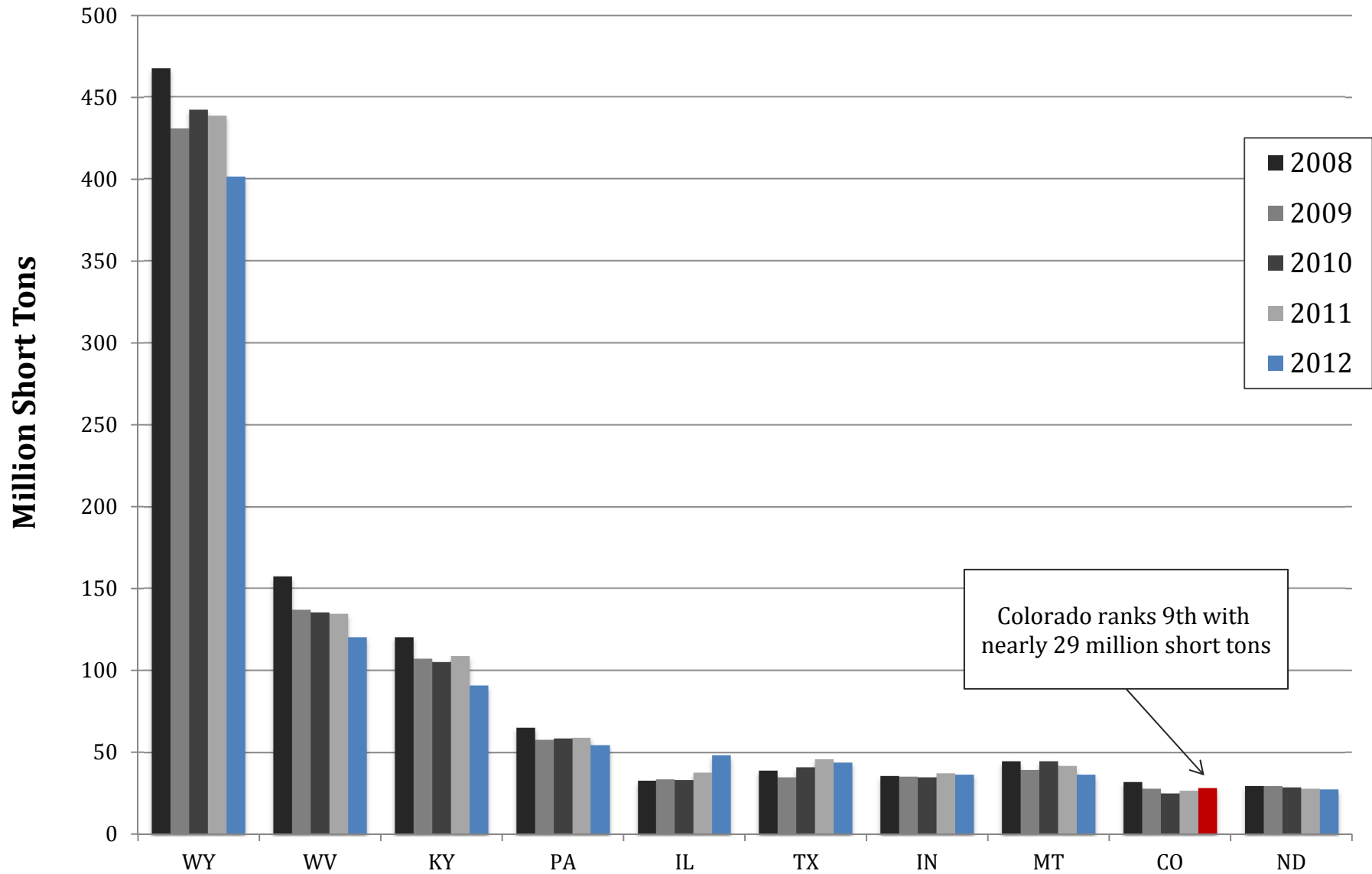
Price differences may be due to variations in production costs, transportation costs, and coal qualities



Source: U.S. Department of Energy, Energy Information Administration
Note: Top ten states plus Colorado; short ton equals 2,000 pounds

Fig. 18

U.S. Coal Production by State, 2008-2012

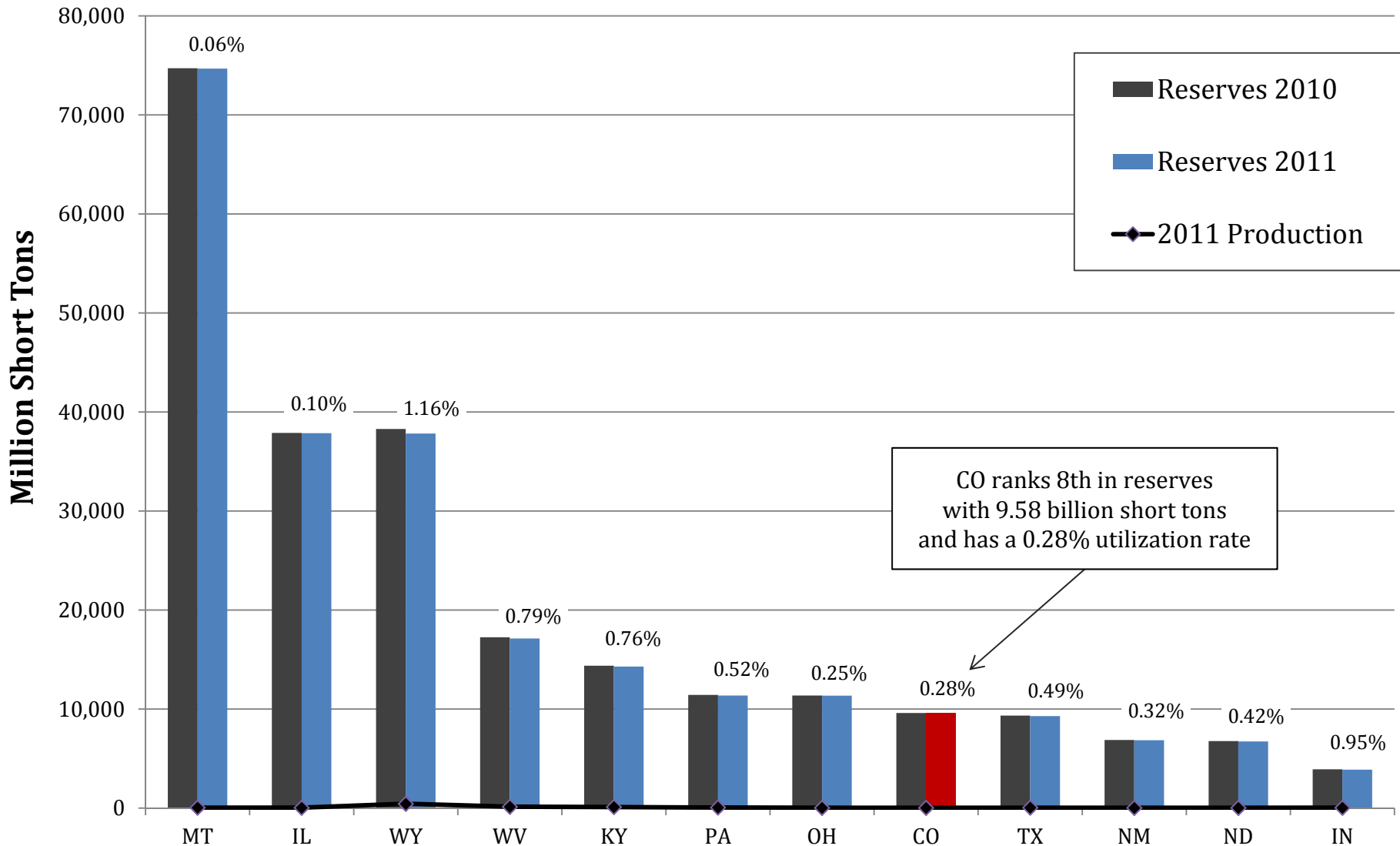


Source: U.S. Department of Energy, Energy Information Administration
 Note: Top ten states; short ton equals 2,000 pounds

Fig. 19

U.S. Coal Reserves & Utilization Rate

Percent equals utilization rate of state reserves; coal reserves are massive, contributing to an extremely small utilization rate



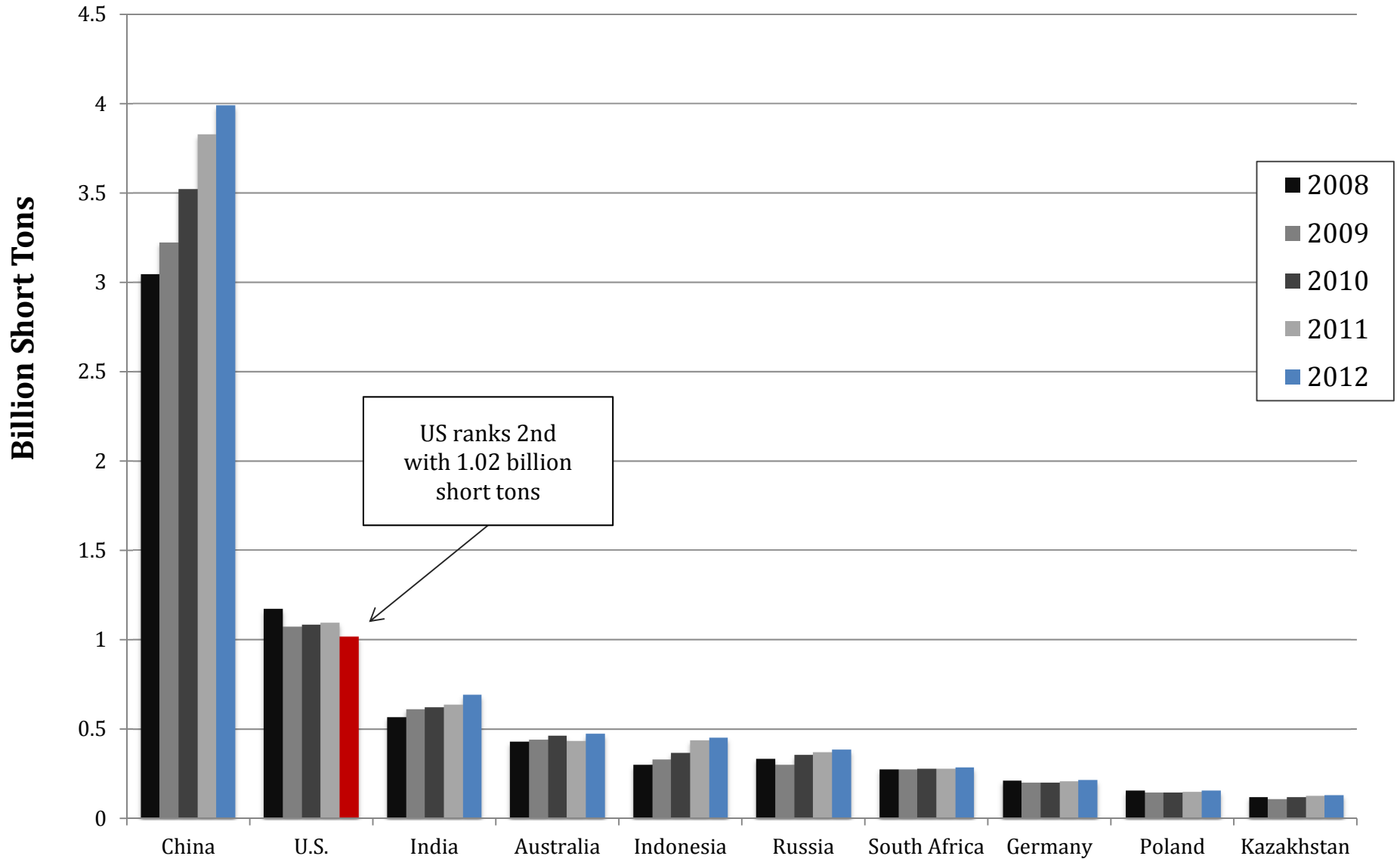
Source: U.S. Department of Energy, Energy Information Administration;

Note: Reserves are "Estimated Recoverable Reserves"; short ton equals 2,000 pounds; 2011 is most recent year for domestic coal reserves data

Fig. 20

Global Coal Production Leaders, 2008-2012

U.S. production holding steady as resource diversity expands; China coal production is increasing rapidly to match growing demand

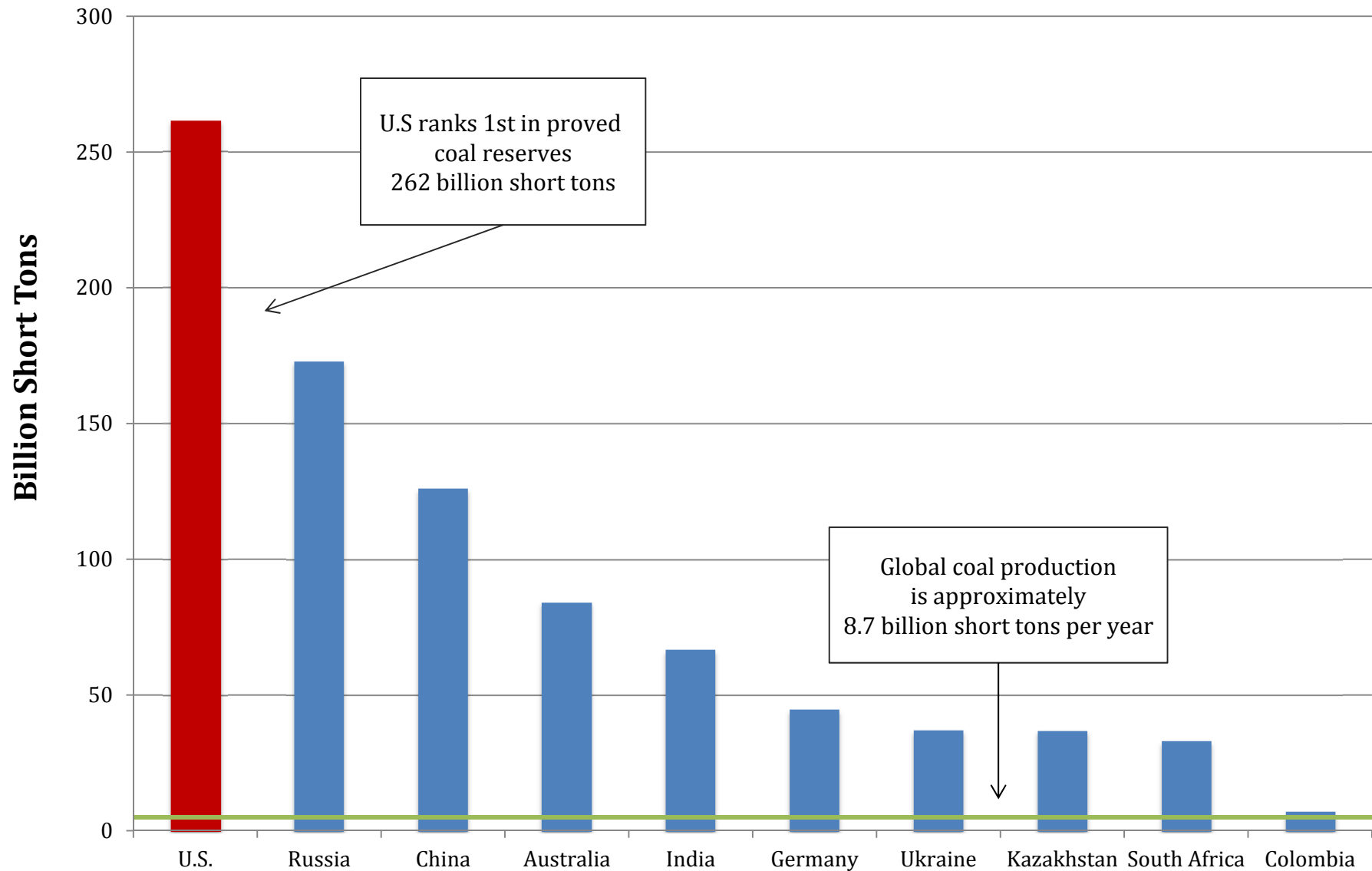


Source: U.S. Department of Energy, Energy Information Administration

Fig. 21

Top Proved Coal Reserves, 2012

The U.S. holds the largest coal reserves in the world

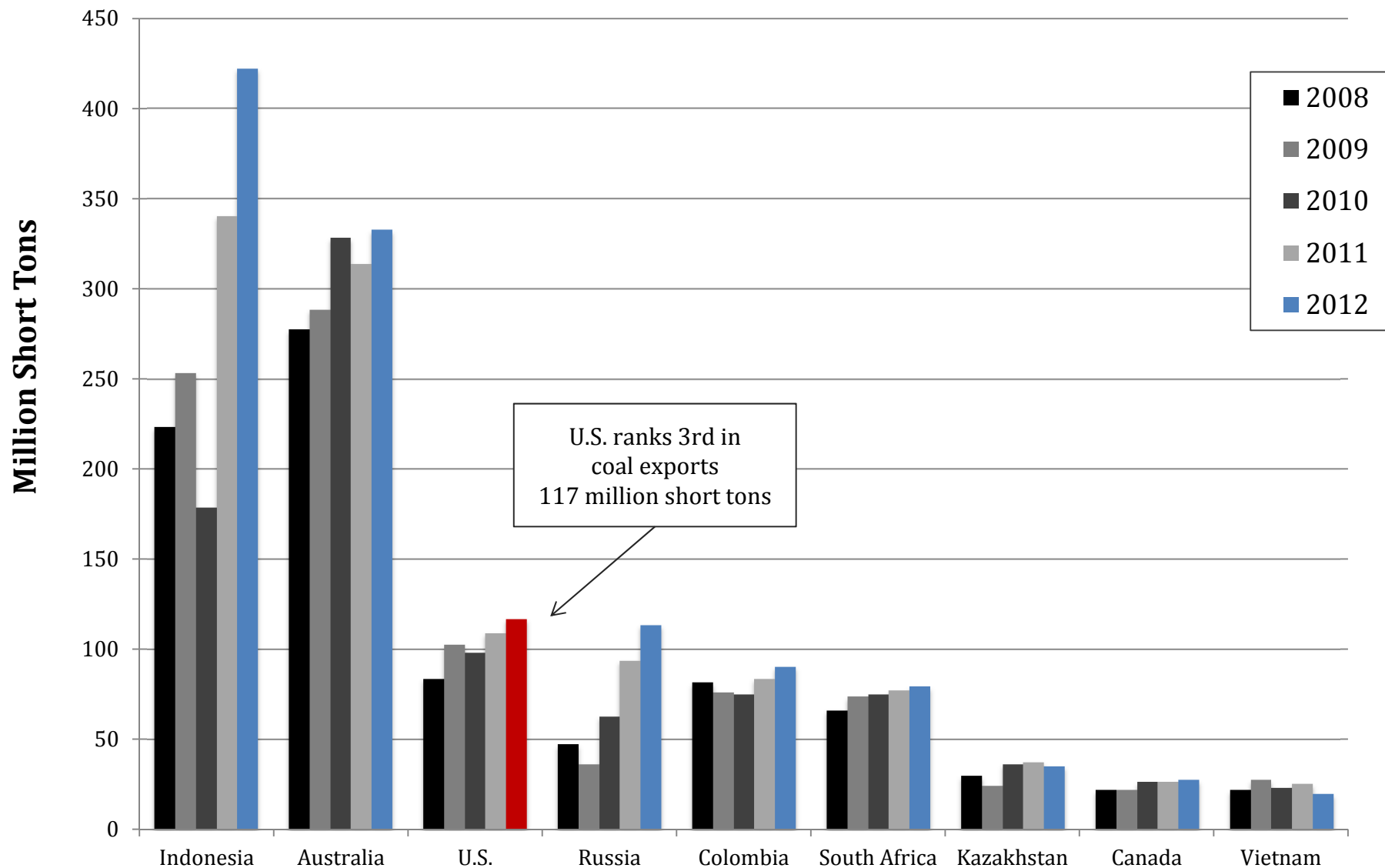


Source: BP Statistical Review of World Energy, June 2013

Note: Short ton equals 2,000 pounds; "recoverable" based on current economics and technology; includes anthracite, bituminous, sub-bituminous, and lignite

Top Net Exporters of Coal, 2008-2012

U.S. exports are increasing to meet global demand

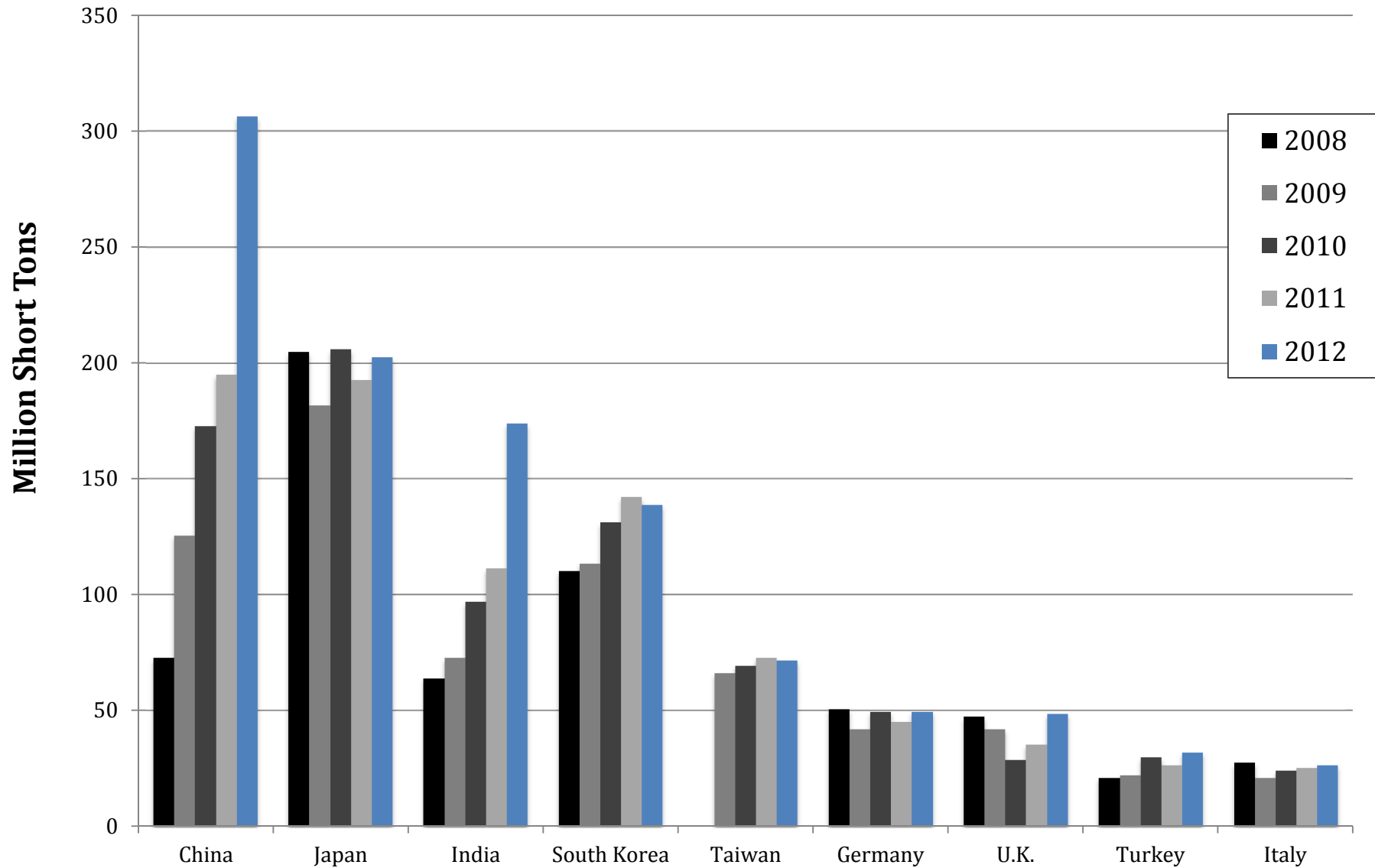


Source: International Energy Agency, Key World Energy Statistics, 2009-2013

Fig. 23

Top Net Importers of Coal, 2008-2012

The U.S. has no significant imports of coal



Source: International Energy Agency, Key World Energy Statistics, 2009-2013

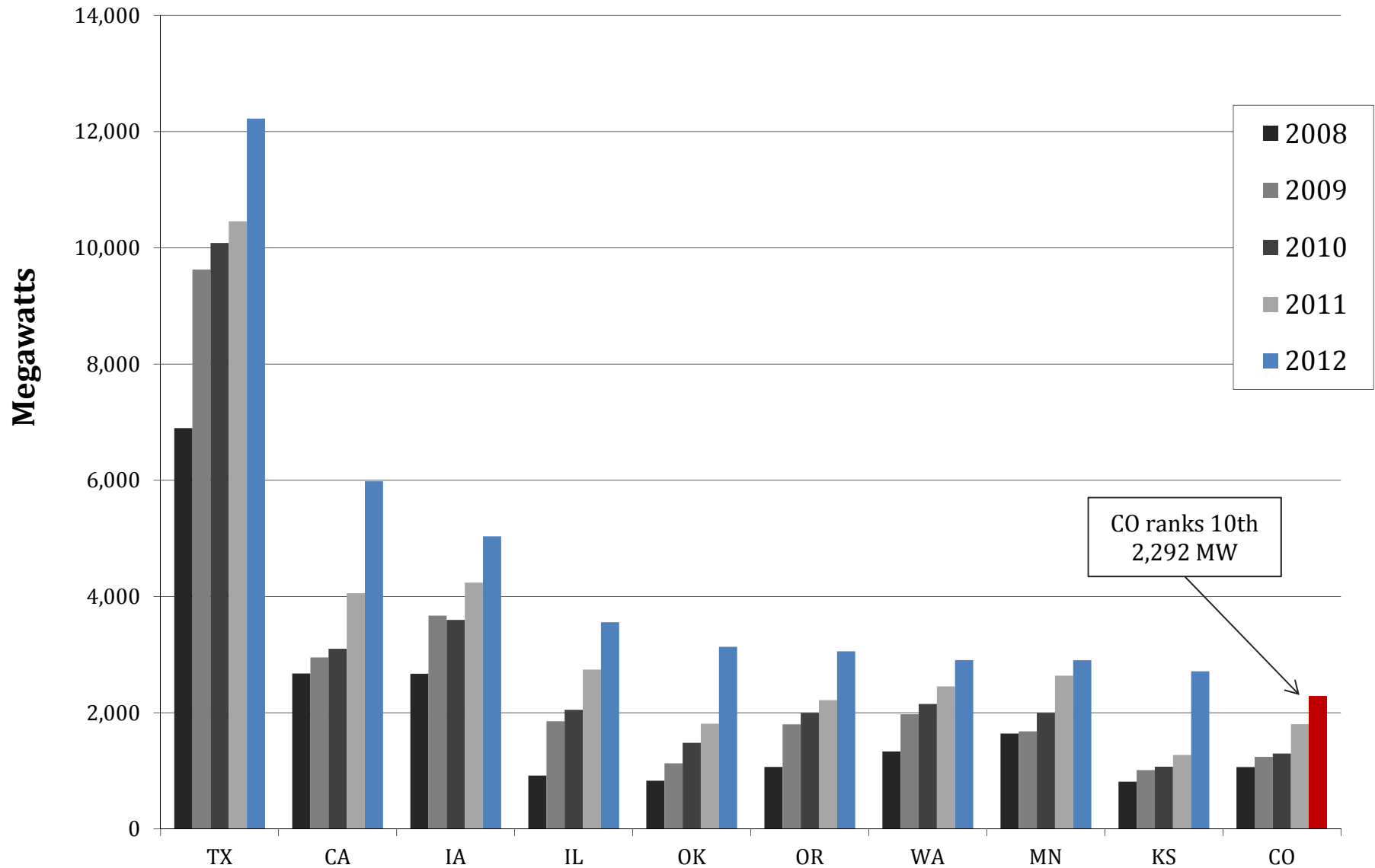
Fig. 24

Renewables



Total Installed Wind Capacity, 2008-2012

Widespread growth in wind installations; Texas leading the way

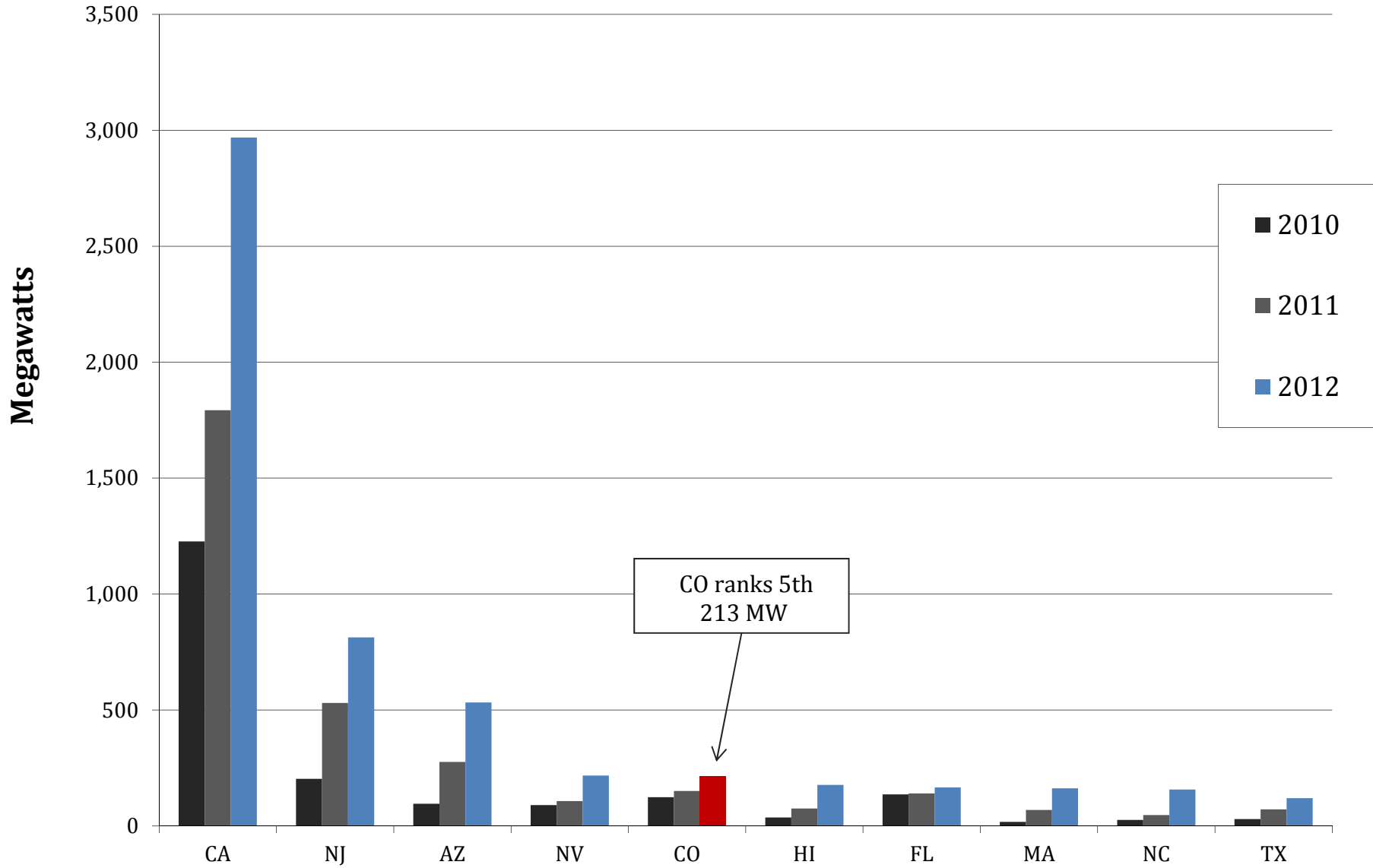


Source: SNL Energy

Fig. 25

Total Installed Solar Capacity, 2010-2012

Significant growth in solar installations; California leading the way with large utility scale solar farms

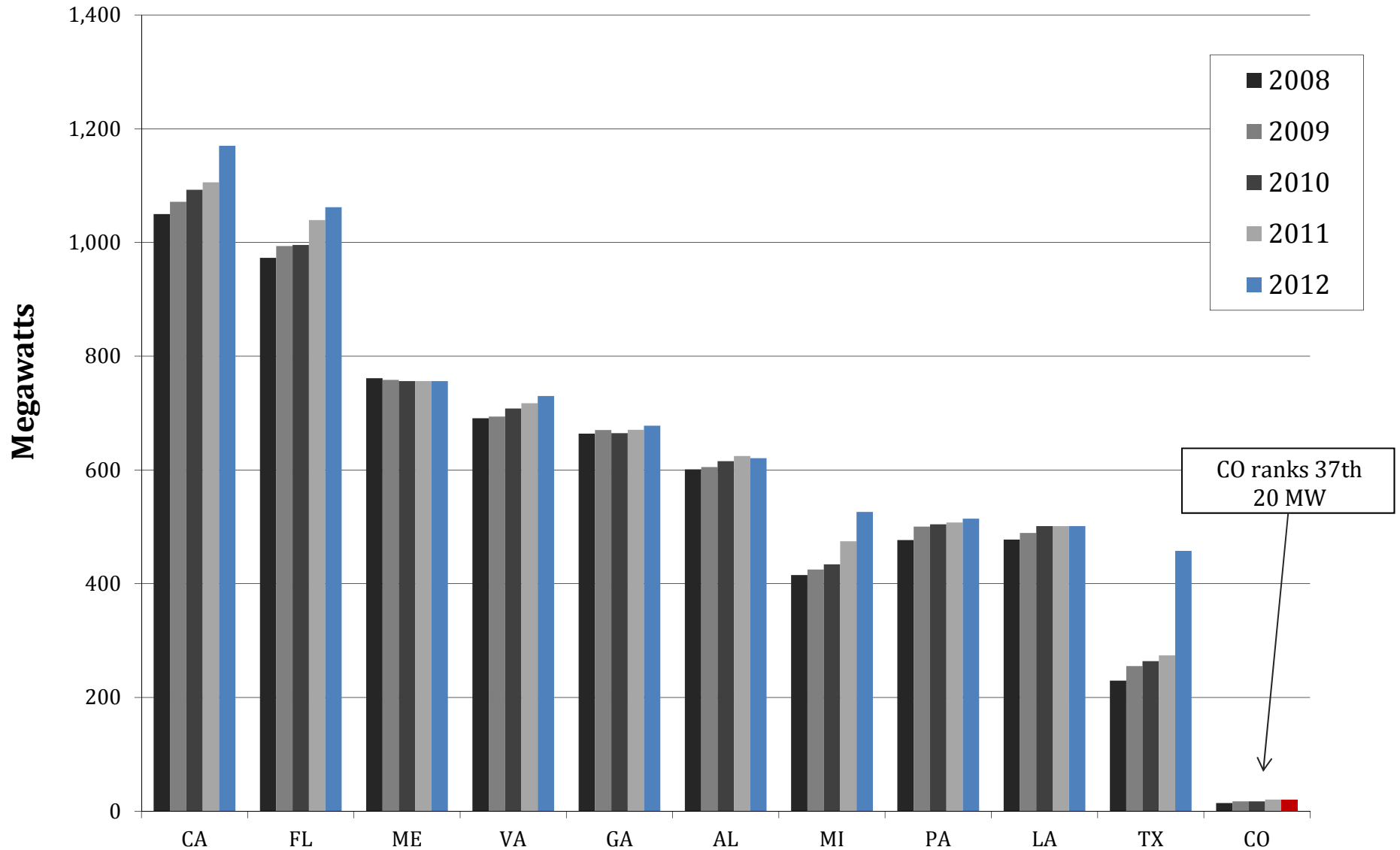


Source: Solar Electric Power Association

Fig. 26

Total Installed Biomass Capacity, 2008-2012

Colorado is below the national trend



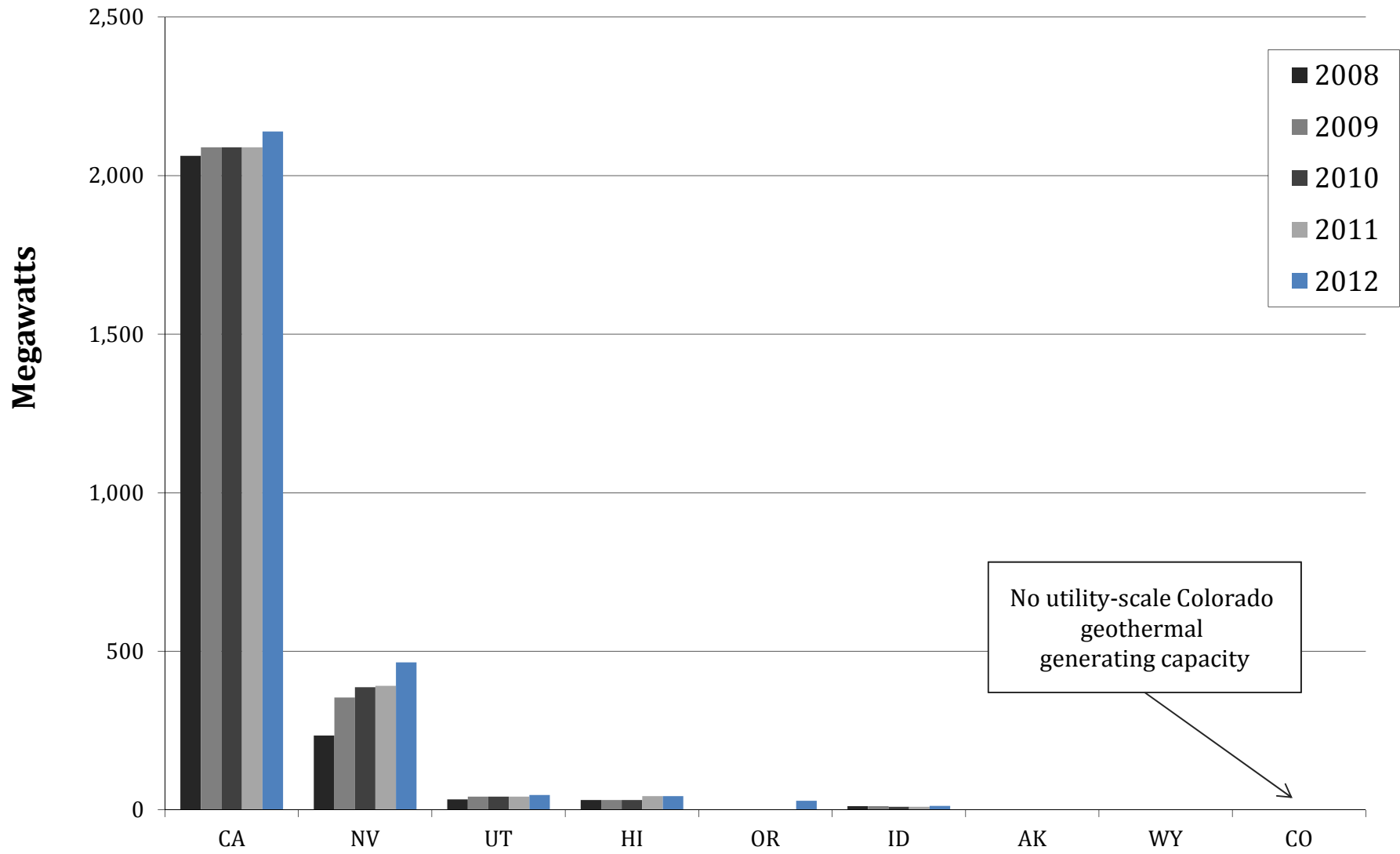
Source: SNL Energy

Note: Top ten states plus Colorado

Fig. 27

Total Installed Geothermal Capacity, 2008-2012

Eight states have geothermal electric generation; California leads the way



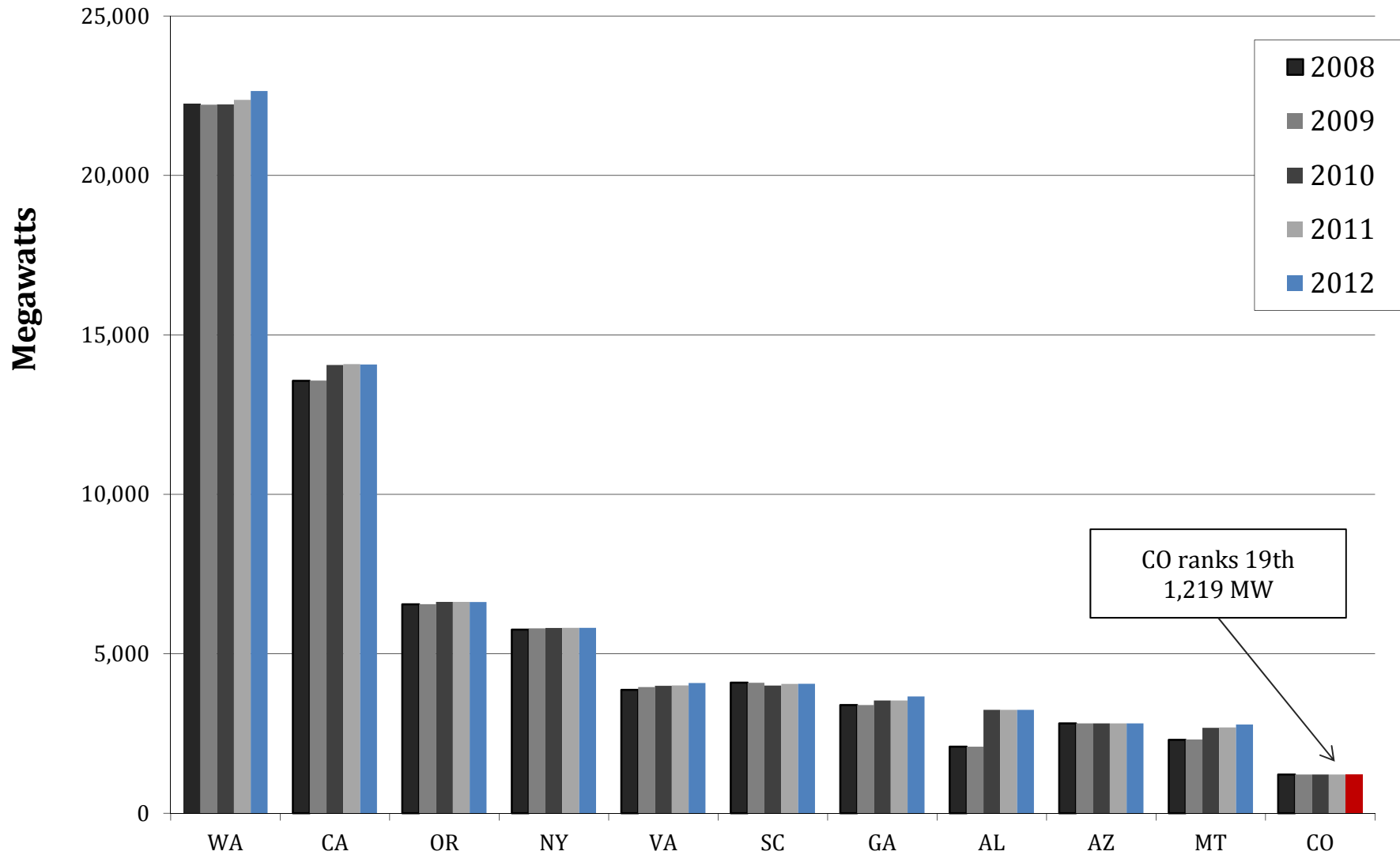
Source: SNL Energy

Note: Vast majority of states have no utility-scale geothermal capacity

Fig. 28

Total Installed Hydropower Capacity, 2008-2012

Minimal nationwide growth in hydropower capacity



Source: SNL Energy

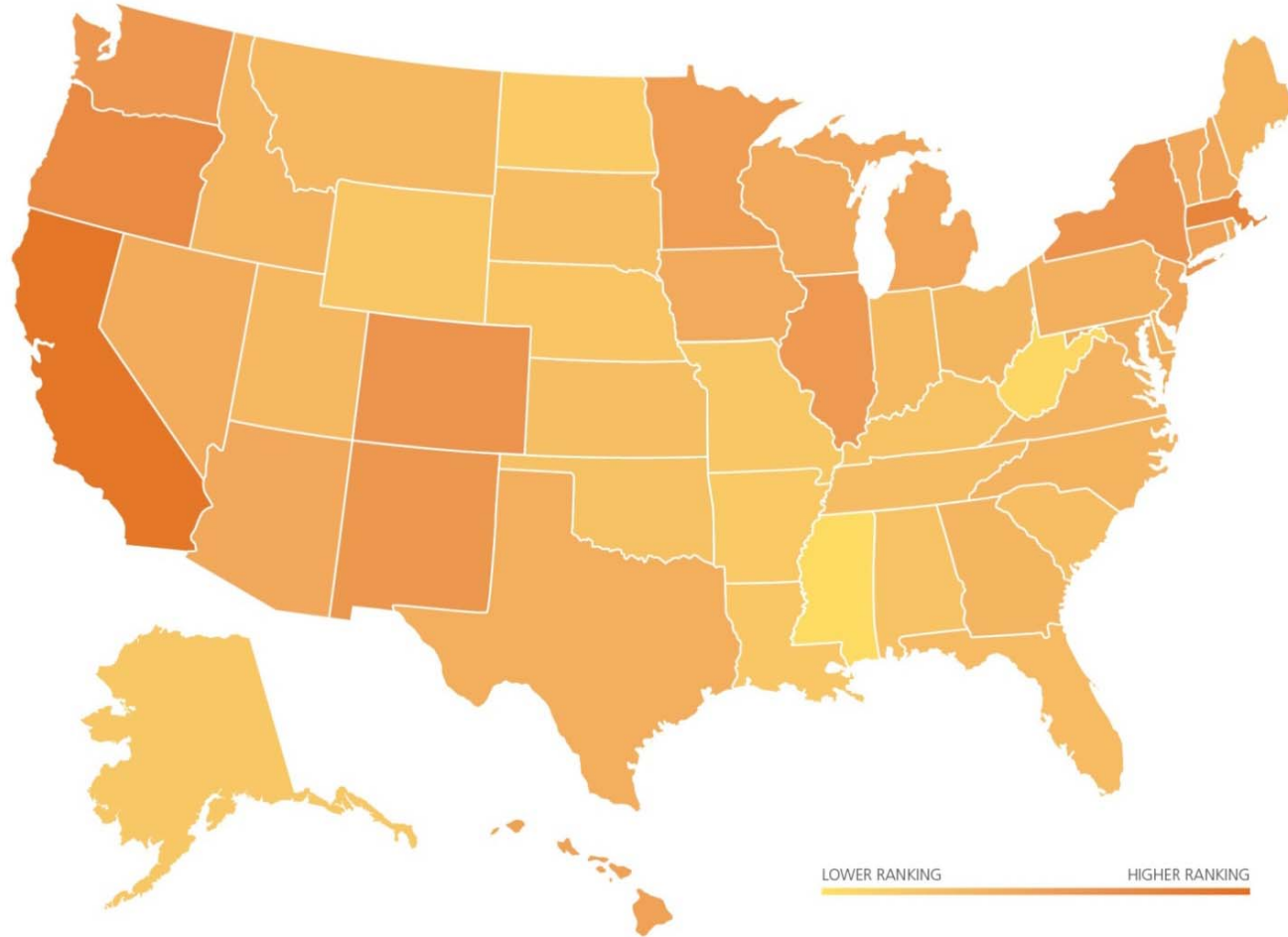
Note: Top ten states plus Colorado

Fig. 29

State Clean Tech Index

2013 STATE INDEX OVERALL

Rankings based on technology,
policy, and capital activities
of each state



| RANK | STATE | LEADERSHIP SCORE |
|------|----------------|------------------|
| 1 | California | 91.7 |
| 2 | Massachusetts | 77.8 |
| 3 | Oregon | 72.8 |
| 4 | New York | 63.3 |
| 5 | Colorado | 63.0 |
| 6 | Washington | 62.3 |
| 7 | New Mexico | 60.8 |
| 8 | Illinois | 58.5 |
| 9 | Minnesota | 56.1 |
| 10 | Hawaii | 52.2 |
| 11 | Connecticut | 52.2 |
| 12 | Michigan | 48.5 |
| 13 | New Jersey | 48.2 |
| 14 | New Hampshire | 46.5 |
| 15 | Vermont | 46.4 |
| 16 | Arizona | 45.6 |
| 17 | Rhode Island | 44.5 |
| 18 | Iowa | 43.8 |
| 19 | Wisconsin | 43.7 |
| 20 | Nevada | 43.4 |
| 21 | Maryland | 41.6 |
| 22 | Texas | 40.9 |
| 23 | Pennsylvania | 39.6 |
| 24 | North Carolina | 37.1 |
| 25 | Delaware | 36.9 |
| 26 | Maine | 36.8 |
| 27 | Idaho | 36.8 |
| 28 | Virginia | 35.7 |
| 29 | Georgia | 33.7 |
| 30 | Ohio | 33.6 |
| 31 | Montana | 32.0 |
| 32 | Utah | 31.5 |
| 33 | Indiana | 31.1 |
| 34 | Florida | 30.1 |
| 35 | Tennessee | 28.6 |
| 36 | South Dakota | 28.1 |
| 37 | South Carolina | 27.9 |
| 38 | Kansas | 27.0 |
| 39 | Oklahoma | 24.6 |
| 40 | Kentucky | 22.6 |
| 41 | Alabama | 22.5 |
| 42 | Nebraska | 21.0 |
| 43 | Wyoming | 20.0 |
| 44 | Louisiana | 19.6 |
| 45 | Missouri | 19.4 |
| 46 | Alaska | 18.5 |
| 47 | Arkansas | 17.5 |
| 48 | North Dakota | 16.5 |
| 49 | West Virginia | 7.3 |
| 50 | Mississippi | 4.2 |

Fig. 30

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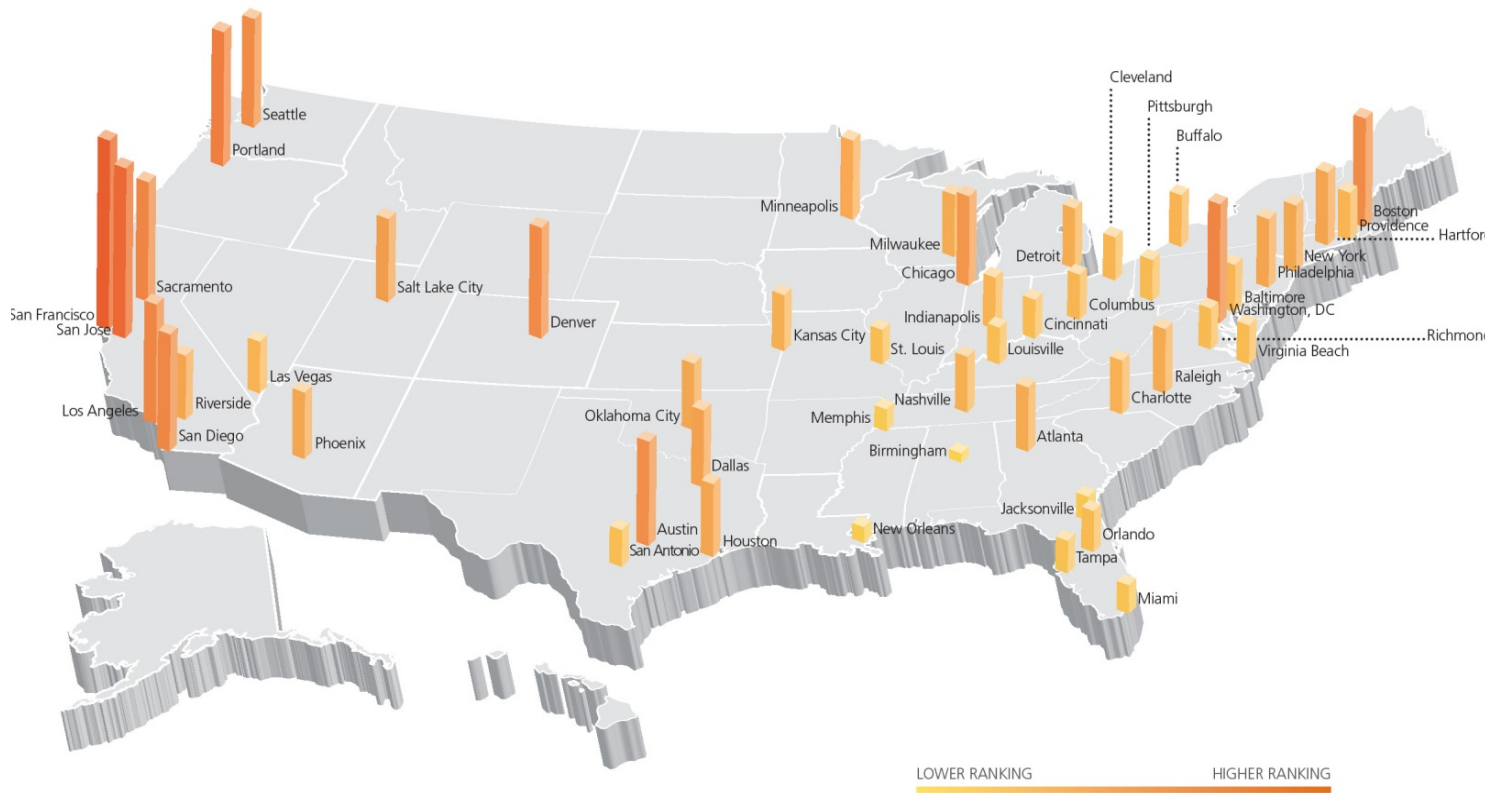
THE CLEAN-TECH MARKET AUTHORITY

CLEAN EDGE

Metro Clean Tech Index

2013 METRO INDEX OVERALL

Rankings based on building efficiency, transportation, clean electricity, carbon management, cleantech investment, innovation, and workforce



| RANK | METRO AREA | LEADERSHIP SCORE |
|------|--------------------|------------------|
| 1 | San Francisco, CA | 89.2 |
| 2 | San Jose, CA | 80.3 |
| 3 | Portland, OR | 62.8 |
| 4 | Los Angeles, CA | 56.1 |
| 5 | Washington, DC | 55.7 |
| 6 | Sacramento, CA | 55.6 |
| 7 | San Diego, CA | 54.7 |
| 8 | Denver, CO | 51.5 |
| 9 | Seattle, WA | 51.2 |
| 10 | Boston, MA | 50.5 |
| 11 | Austin, TX | 48.8 |
| 12 | Chicago, IL | 41.7 |
| 13 | Salt Lake City, UT | 38.5 |
| 14 | Minneapolis, MN | 36.5 |
| 15 | Dallas, TX | 35.8 |
| 16 | Houston, TX | 34.4 |
| 17 | Hartford, CT | 33.5 |
| 18 | Riverside, CA | 33.1 |
| 19 | Philadelphia, PA | 31.6 |
| 20 | Phoenix, AZ | 31.3 |
| 21 | New York, NY | 30.7 |
| 22 | Oklahoma City, OK | 30.7 |
| 23 | Raleigh, NC | 30.4 |
| 24 | Atlanta, GA | 30.3 |
| 25 | Milwaukee, WI | 29.1 |
| 26 | Detroit, MI | 28.2 |
| 27 | Kansas City, MO | 26.3 |
| 28 | Nashville, TN | 26.1 |
| 29 | Charlotte, NC | 24.6 |
| 30 | Las Vegas, NV | 24.3 |
| 31 | Buffalo, NY | 23.7 |
| 32 | Indianapolis, IN | 23.5 |
| 33 | Baltimore, MD | 21.7 |
| 34 | Providence, RI | 21.5 |
| 35 | Columbus, OH | 21.0 |
| 36 | Cleveland, OH | 19.5 |
| 37 | Orlando, FL | 19.4 |
| 38 | Richmond, VA | 18.7 |
| 39 | Pittsburgh, PA | 18.7 |
| 40 | Cincinnati, OH | 18.0 |
| 41 | Virginia Beach, VA | 17.9 |
| 42 | San Antonio, TX | 17.1 |
| 43 | Louisville, KY | 16.5 |
| 44 | St. Louis, MO | 15.8 |
| 45 | Tampa, FL | 15.1 |
| 46 | Miami, FL | 13.1 |
| 47 | Jacksonville, FL | 11.0 |
| 48 | Memphis, TN | 9.7 |
| 49 | New Orleans, LA | 7.3 |
| 50 | Birmingham, AL | 4.2 |

Fig. 31

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THE CLEAN-TECH MARKET AUTHORITY

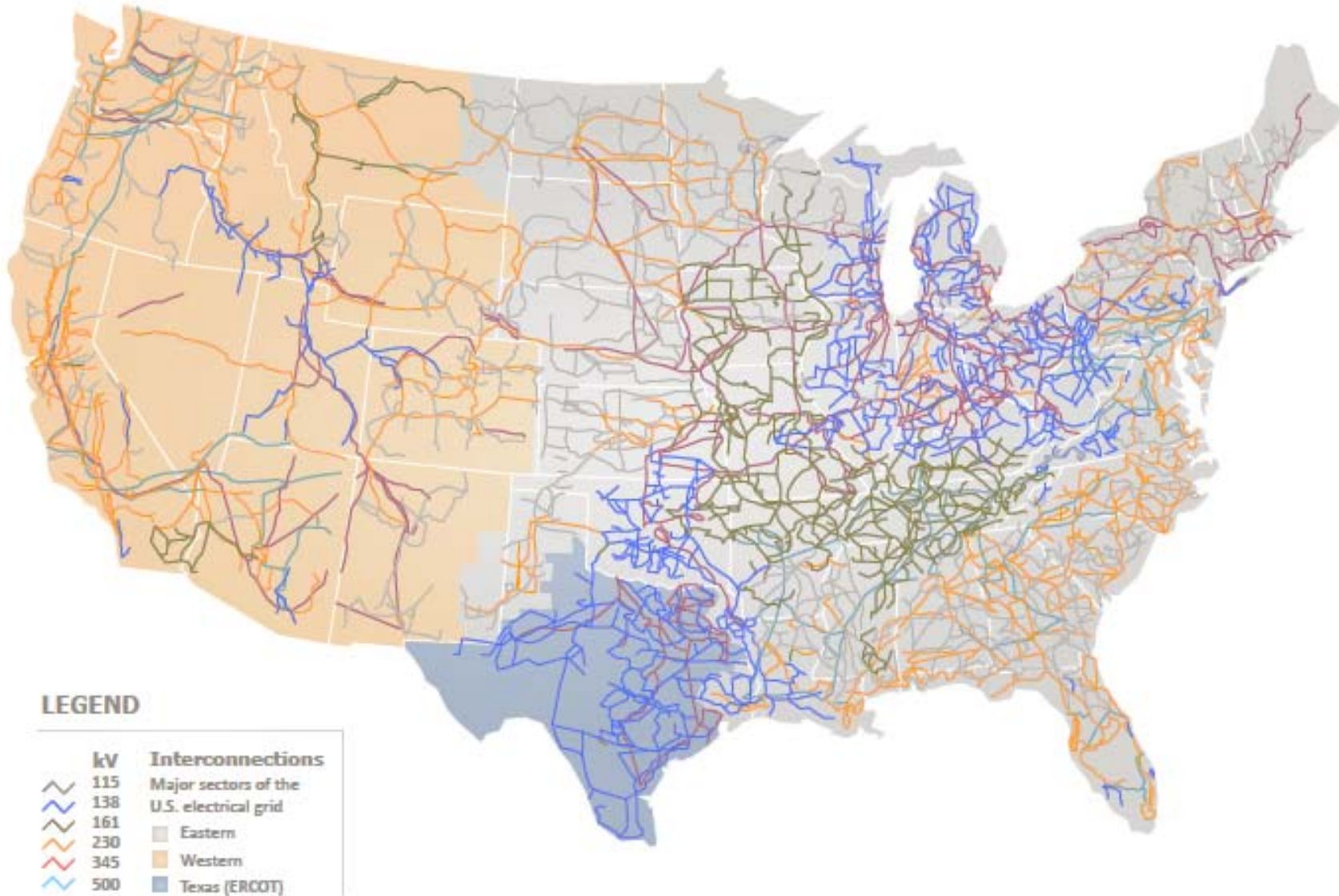
CLEAN EDGE

Power



Map of Major Electric Transmission Lines

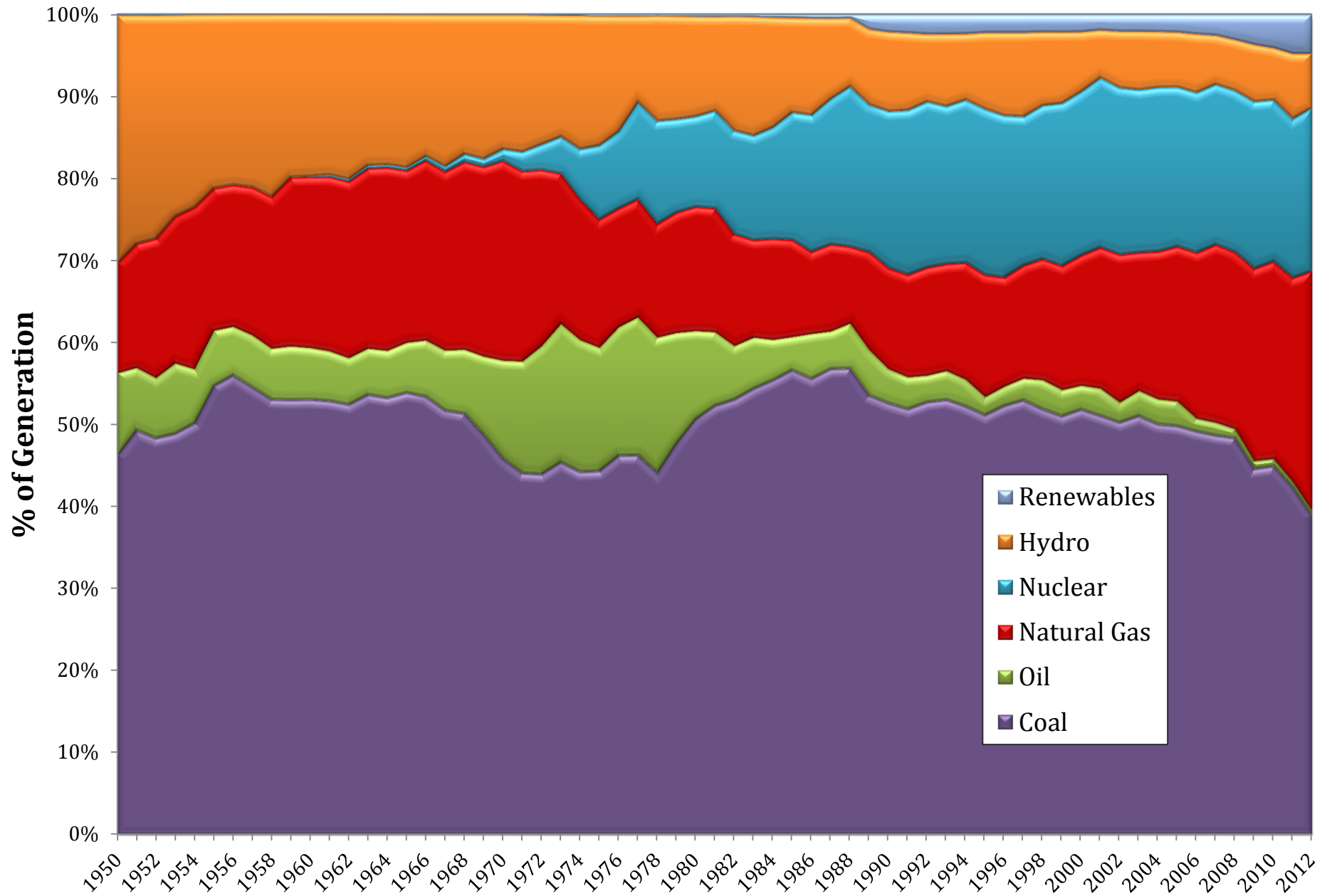
Eastern, Western, and Texas Interconnections are all unique; expansion of renewables may require new transmission lines



Source: FEMA

Fig. 32

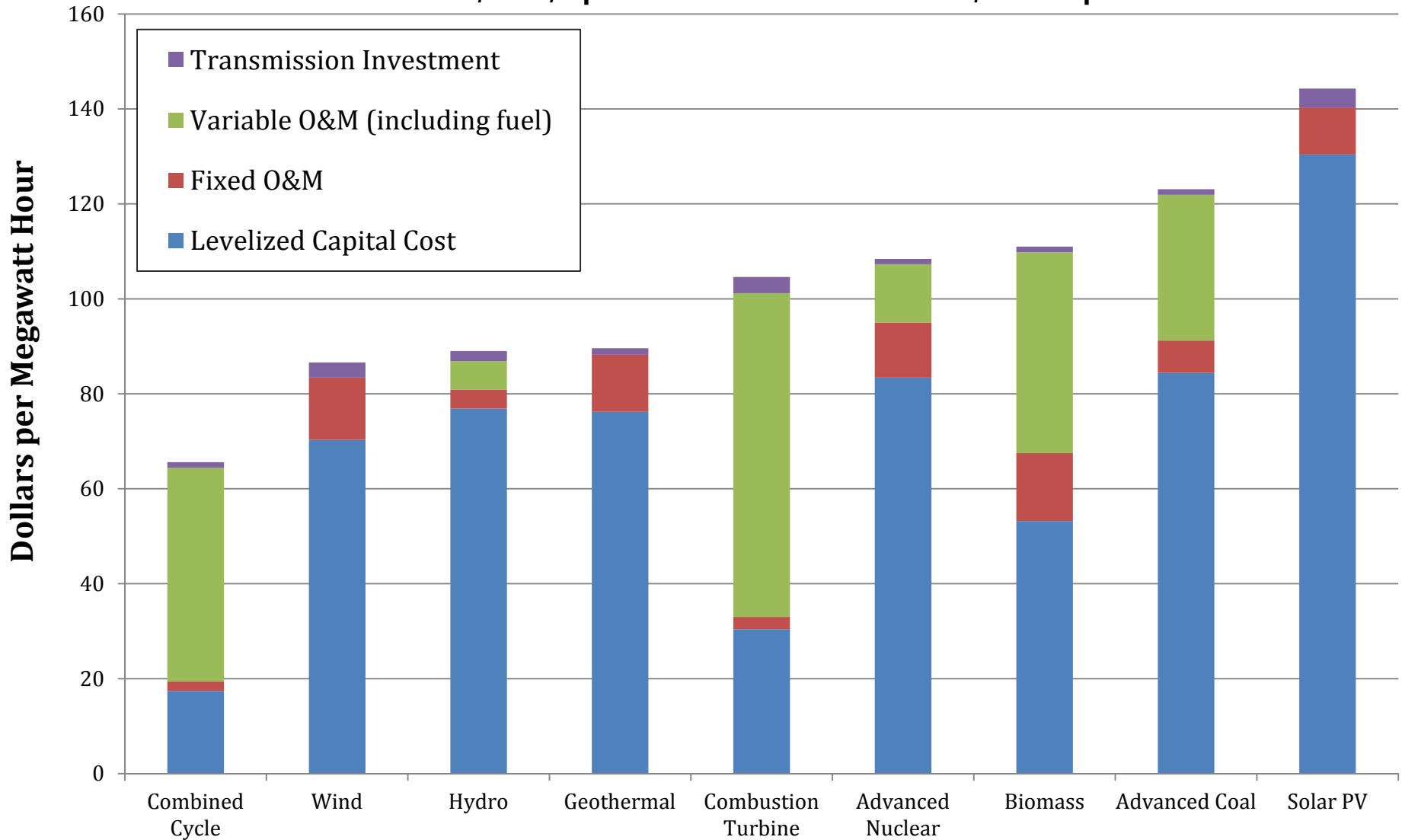
U.S. Net Generation History by Resource, 1950-2012



Source: U.S. Department of Energy, Energy Information Administration; some 2012 data is provisional

Levelized Costs for Electric Generation Plants

Assuming a plant start date of 2018, the total levelized cost measures competitiveness of different generating technologies; levelized costs include transmission, fuel, operations and maintenance, and capital



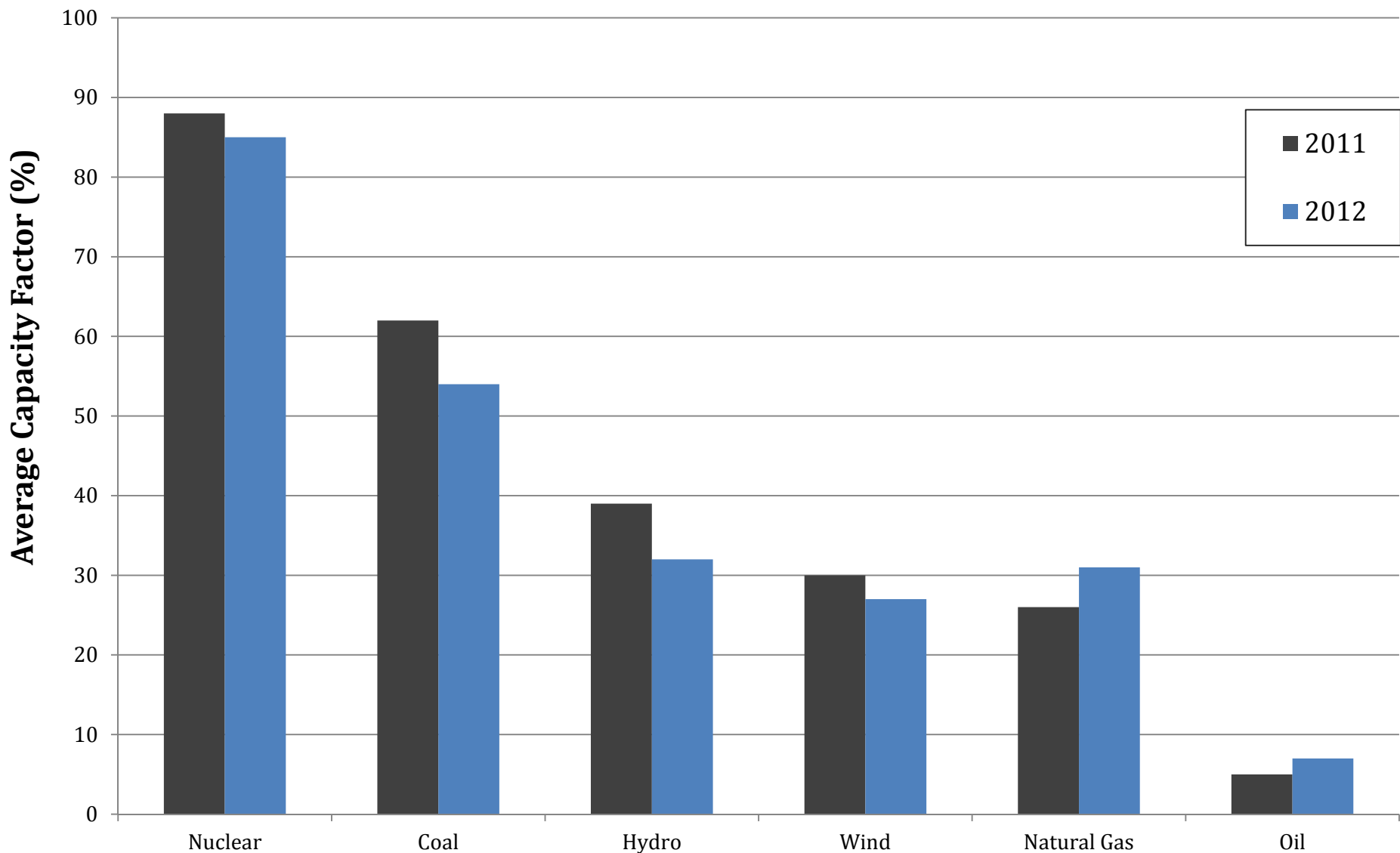
Source: U.S. Department of Energy, Energy Information Administration

Note: 2018 is referenced due to the long lead time required for some technologies and projects; estimates expressed above will vary by region

Fig. 34

Average U.S. Capacity Factor by Resource, 2011 & 2012

The average capacity factor of a power plant is the ratio of actual output per year compared to the output of operating at full nameplate capacity



Source: U.S. Department of Energy, Energy Information Administration

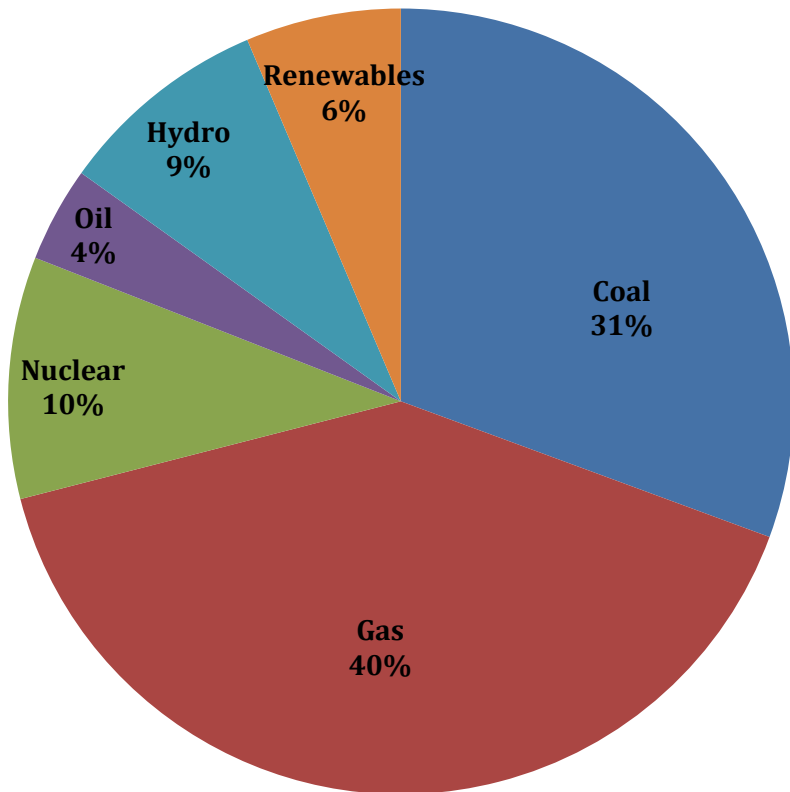
Fig. 35

U.S. Nameplate Capacity and Net Generation, 2012

Available installed capacity compared to utilized capacity

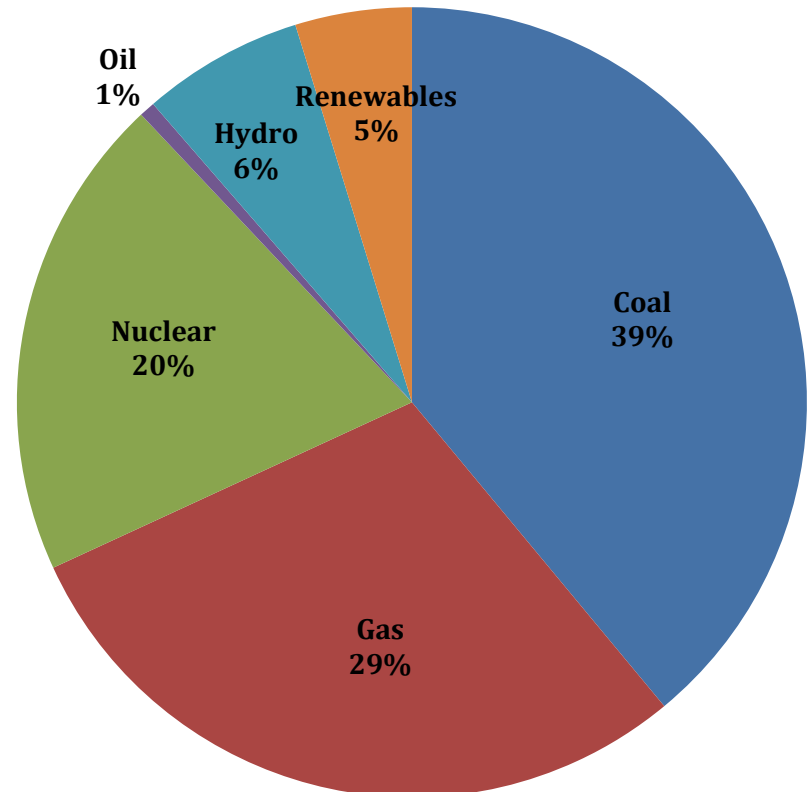
U.S. Operating Nameplate Capacity

1.04 terawatts of installed capacity



U.S. Net Generation by Resource

3,874 terawatt hours of total generation

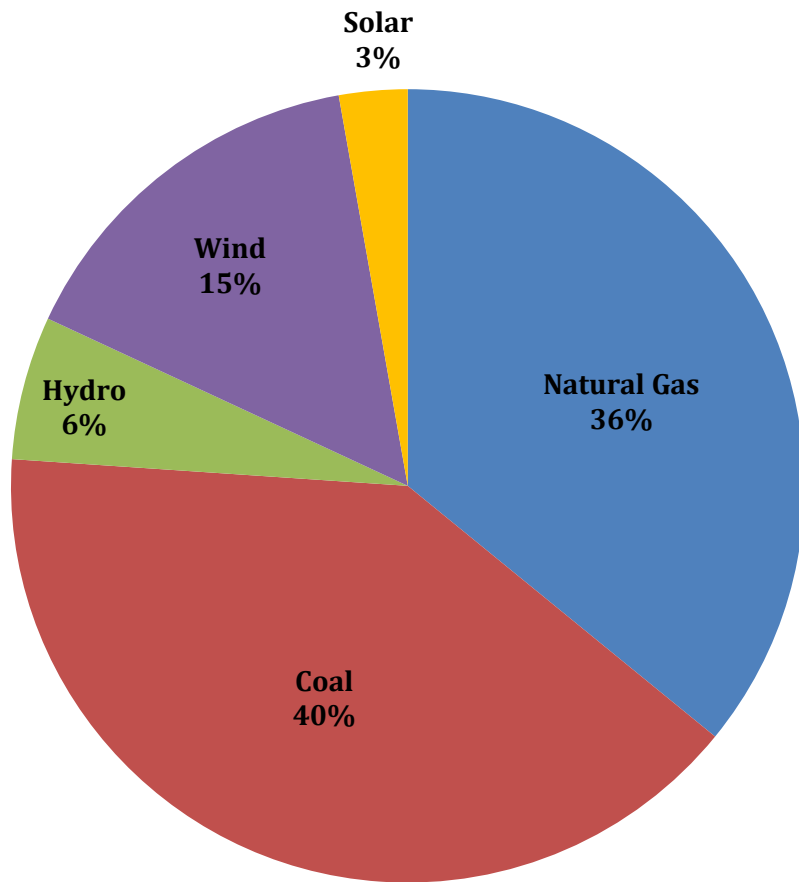


Source: U.S. Department of Energy; Energy Information Administration, figures exclude idled power plants

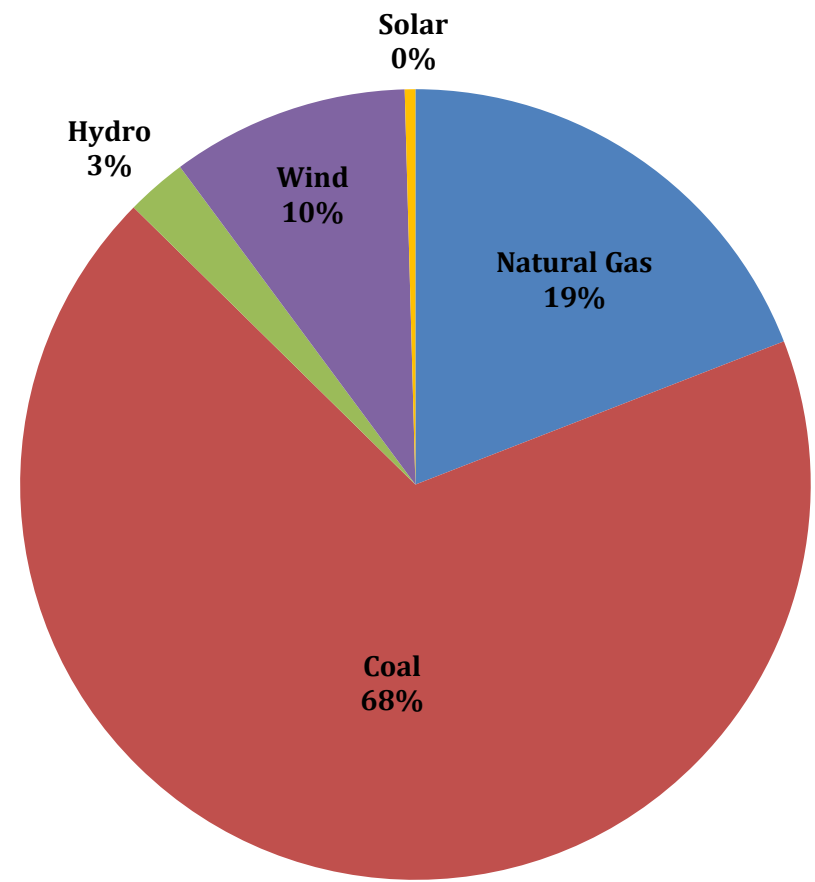
Colorado Nameplate Capacity and Net Generation, 2012

Available installed capacity compared to utilized capacity

Colorado Operating Nameplate Capacity
13.8 gigawatts of installed capacity



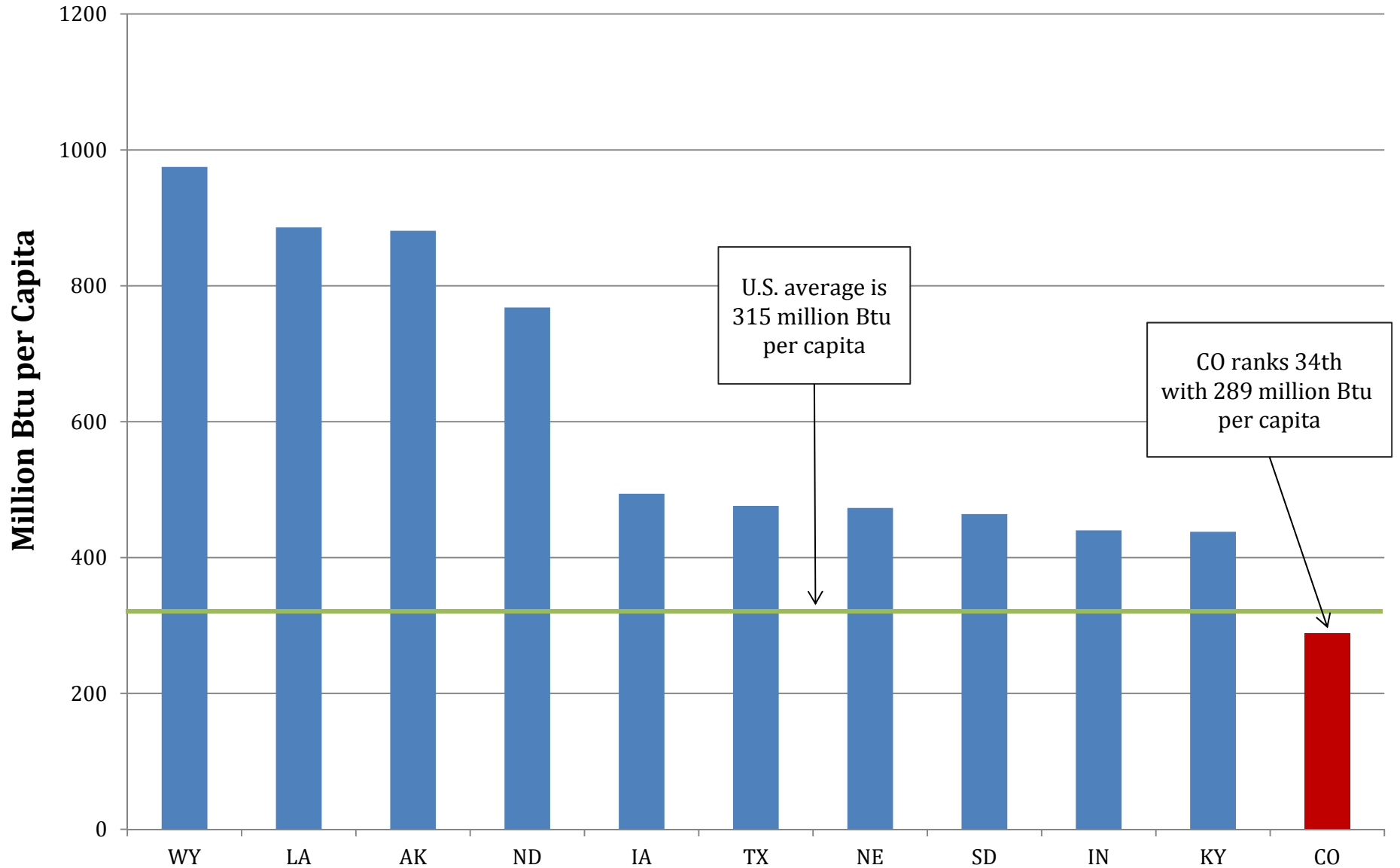
Colorado Net Generation by Resource
50,783 gigawatt hours of total generation



Source: U.S. Department of Energy; Energy Information Administration; figures exclude idled power plants
Note: Electricity use by sector - Industrial (29%), Residential (34%), Commercial (37%)

U.S. Per Capita Energy Consumption, 2011

Colorado has a low energy (Btu) consumption rate per person

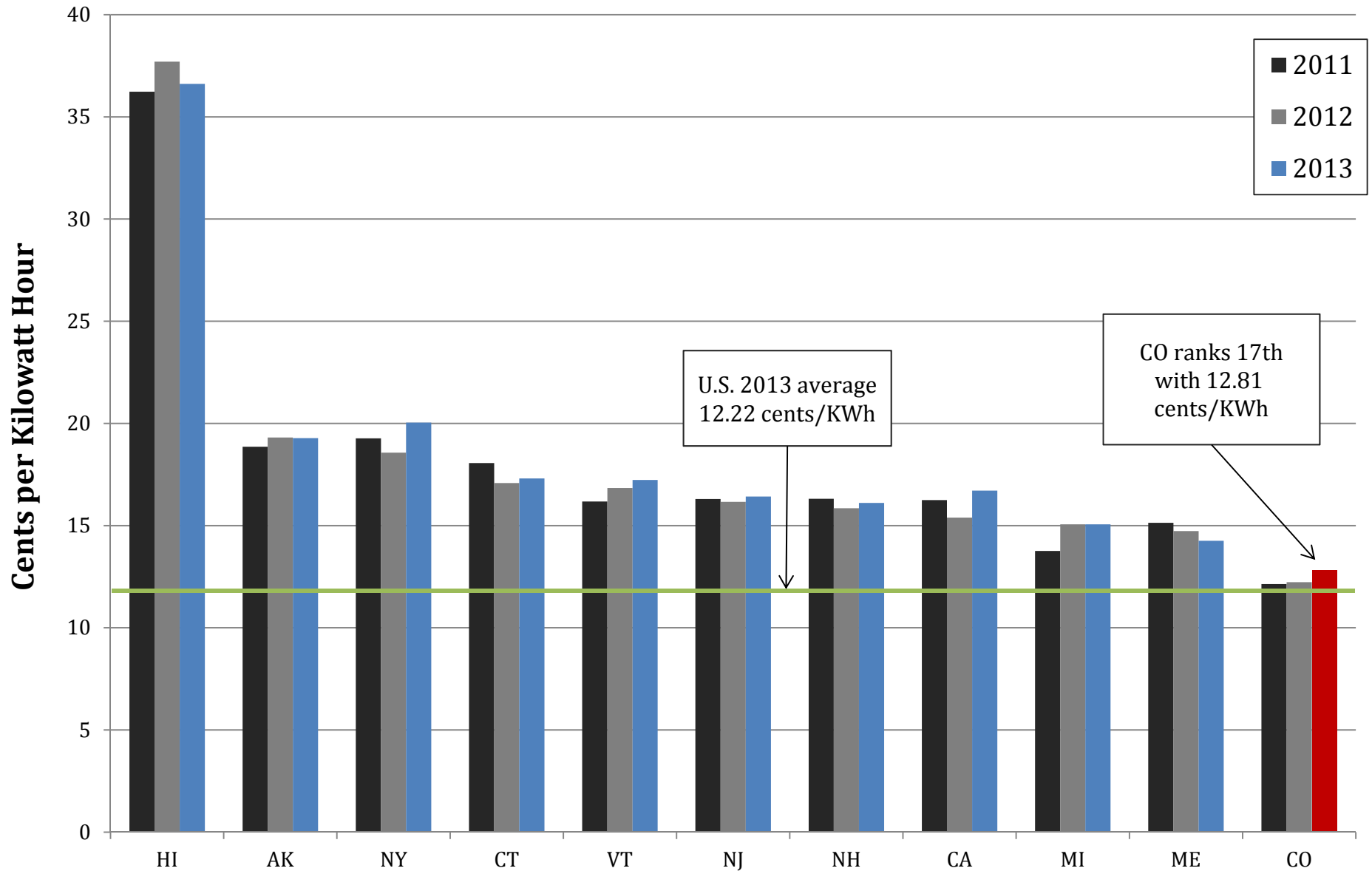


Source: U.S. Department of Energy, Energy Information Administration

Note: Top ten states plus Colorado

Average Residential Summer Retail Electric Price, 2011-13

Colorado has the 17th most expensive residential retail electricity price



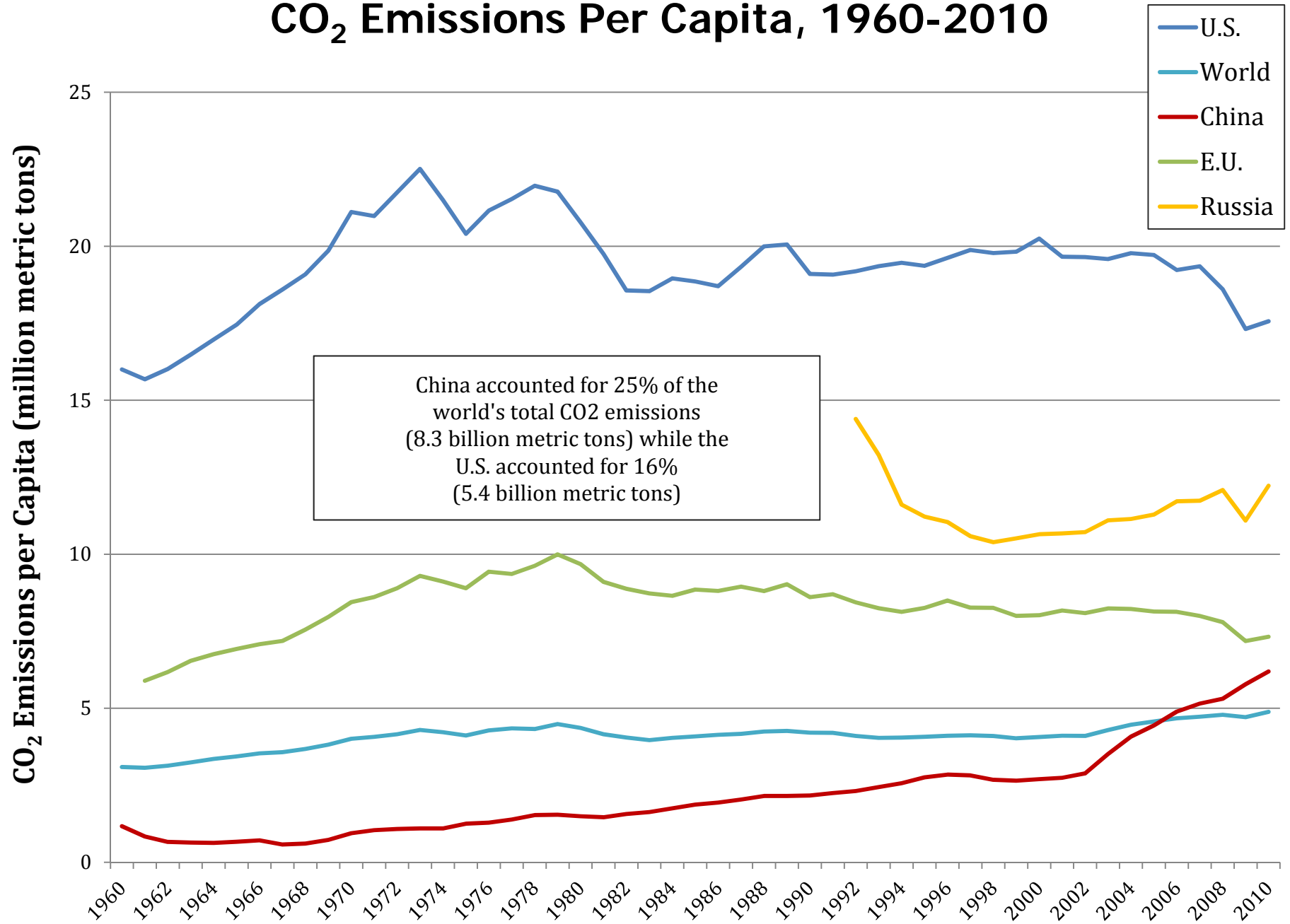
Source: U.S. Census; U.S. Department of Energy, Energy Information Administration

Note: Top ten states plus Colorado

Environment & Sustainability



CO₂ Emissions Per Capita, 1960-2010

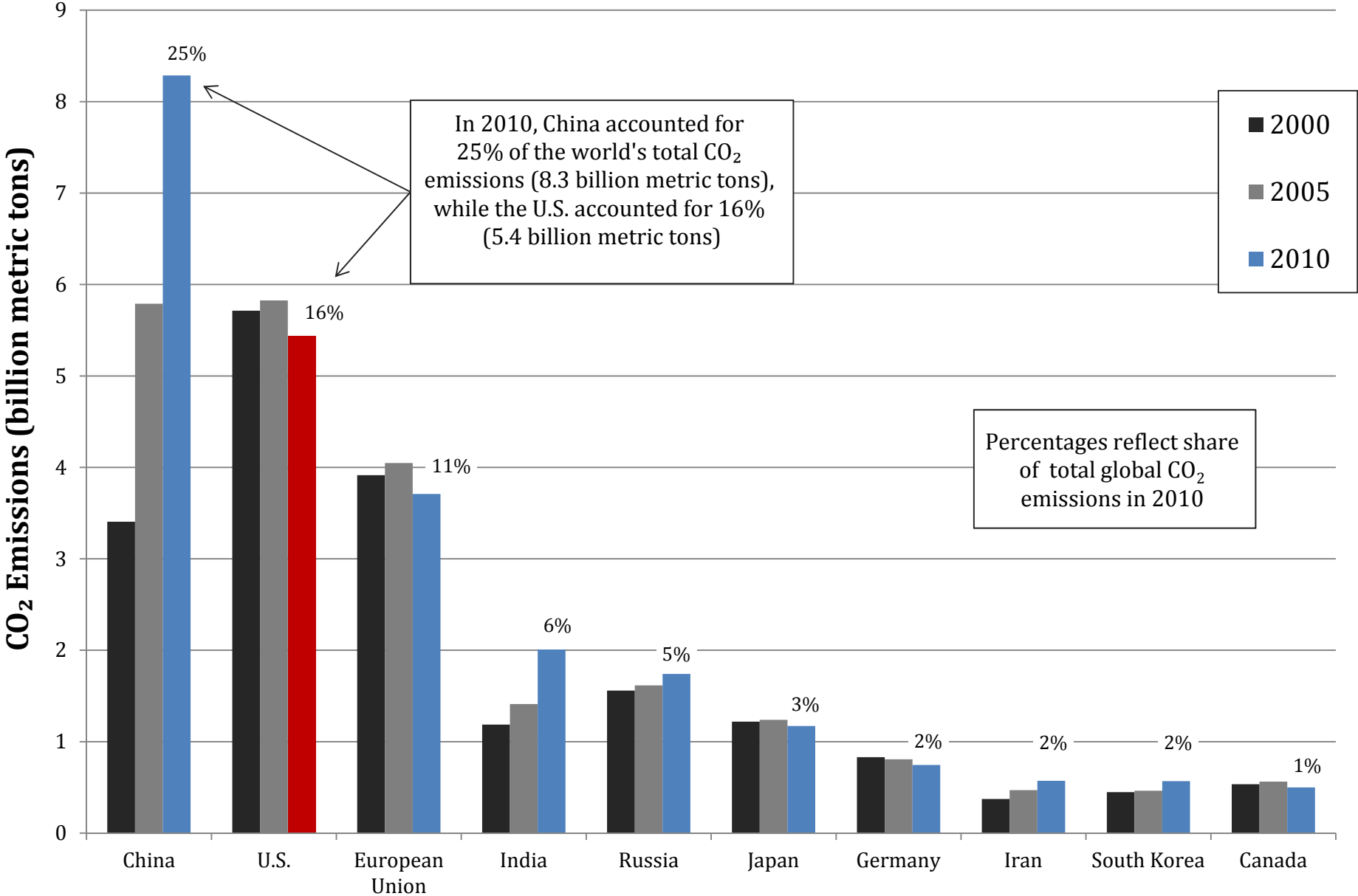


Source: World Bank, Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory

Fig. 40

CO₂ Emissions by Country: 2000, 2005, 2010

Top ten countries account for 64% of world CO₂ emissions



Source: World Bank; Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory

Fig. 41

2013 State Energy Efficiency Scorecard

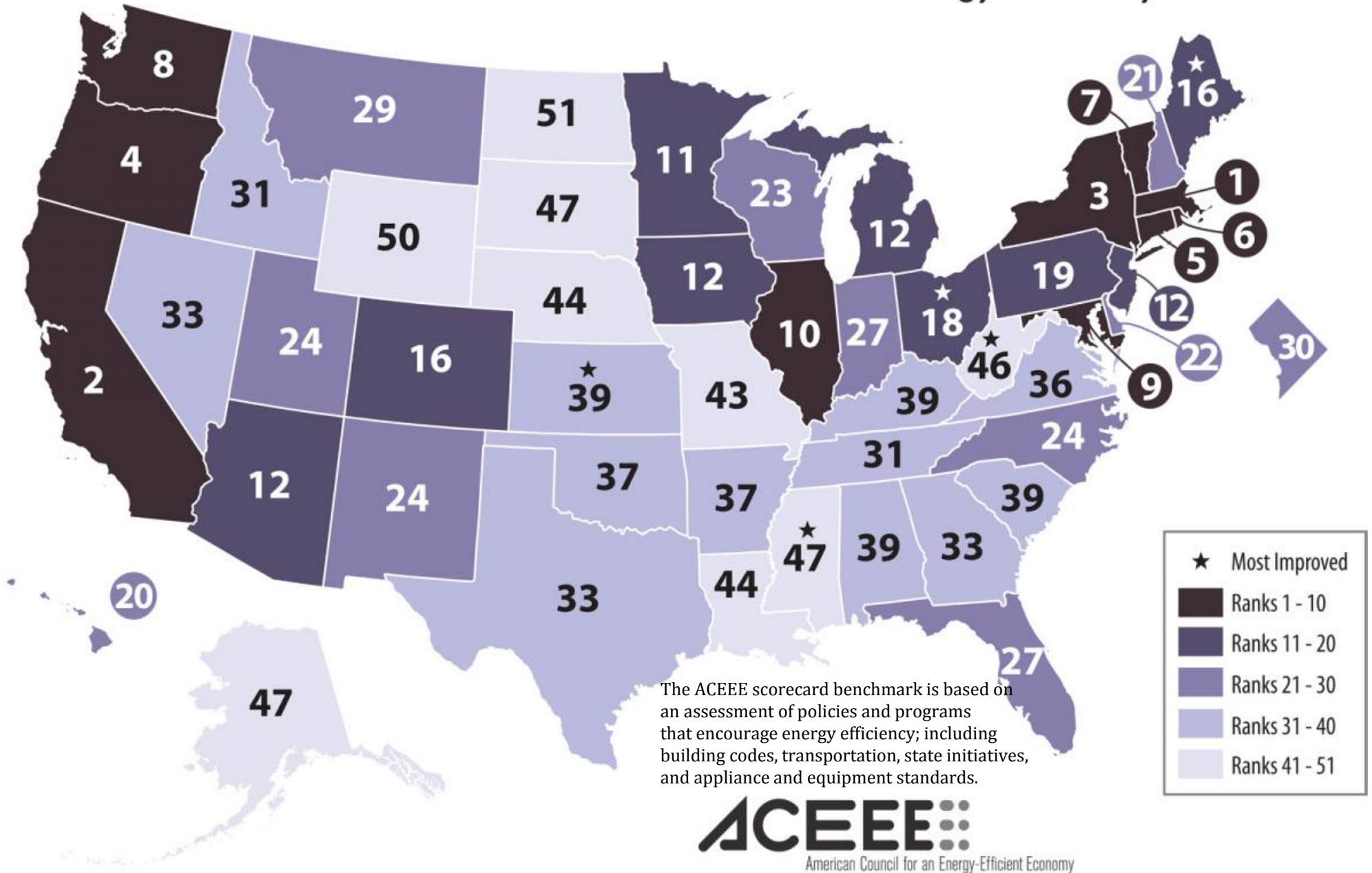
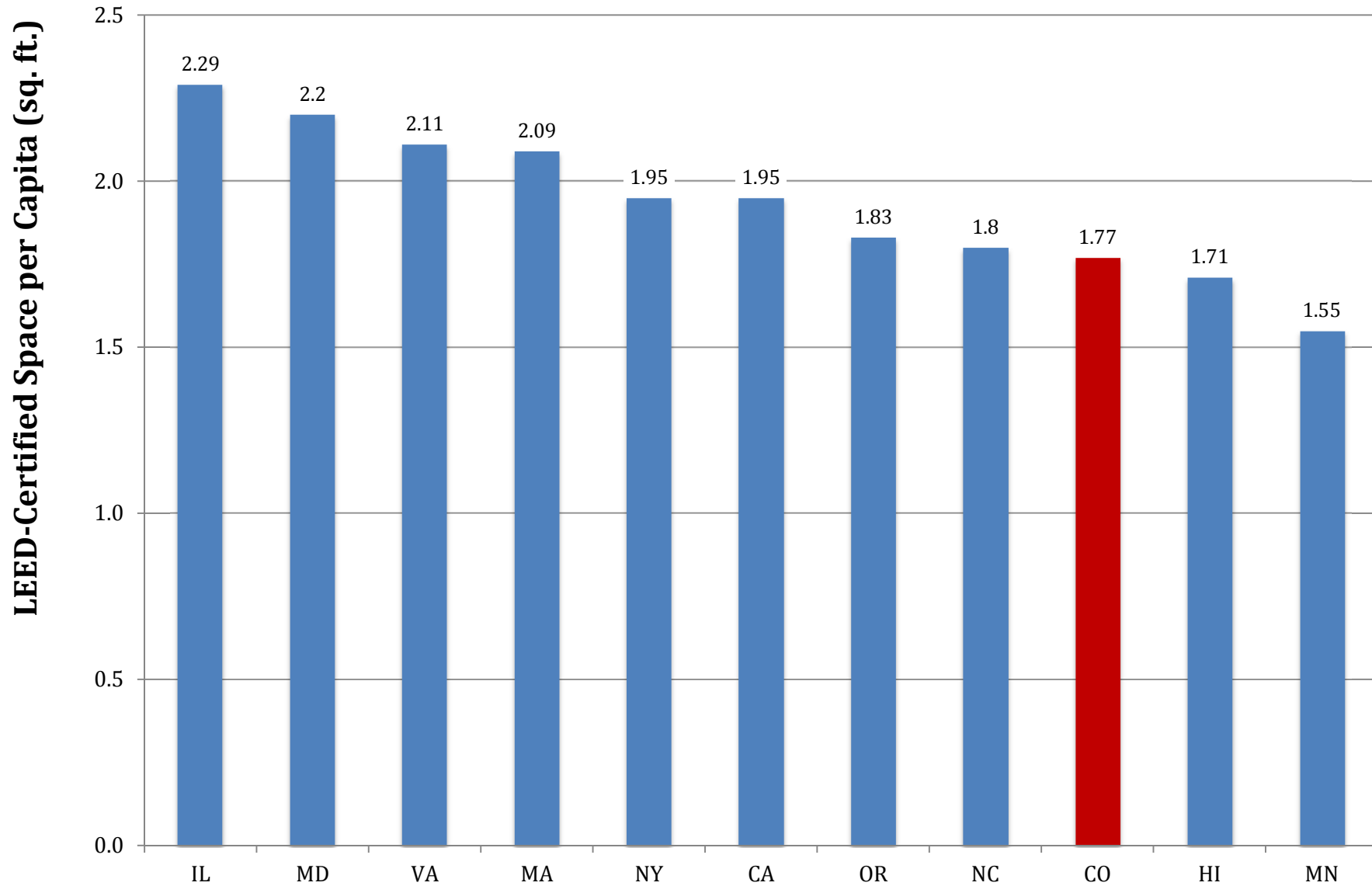


Fig. 42

Square Footage of LEED-Certified Space, 2013

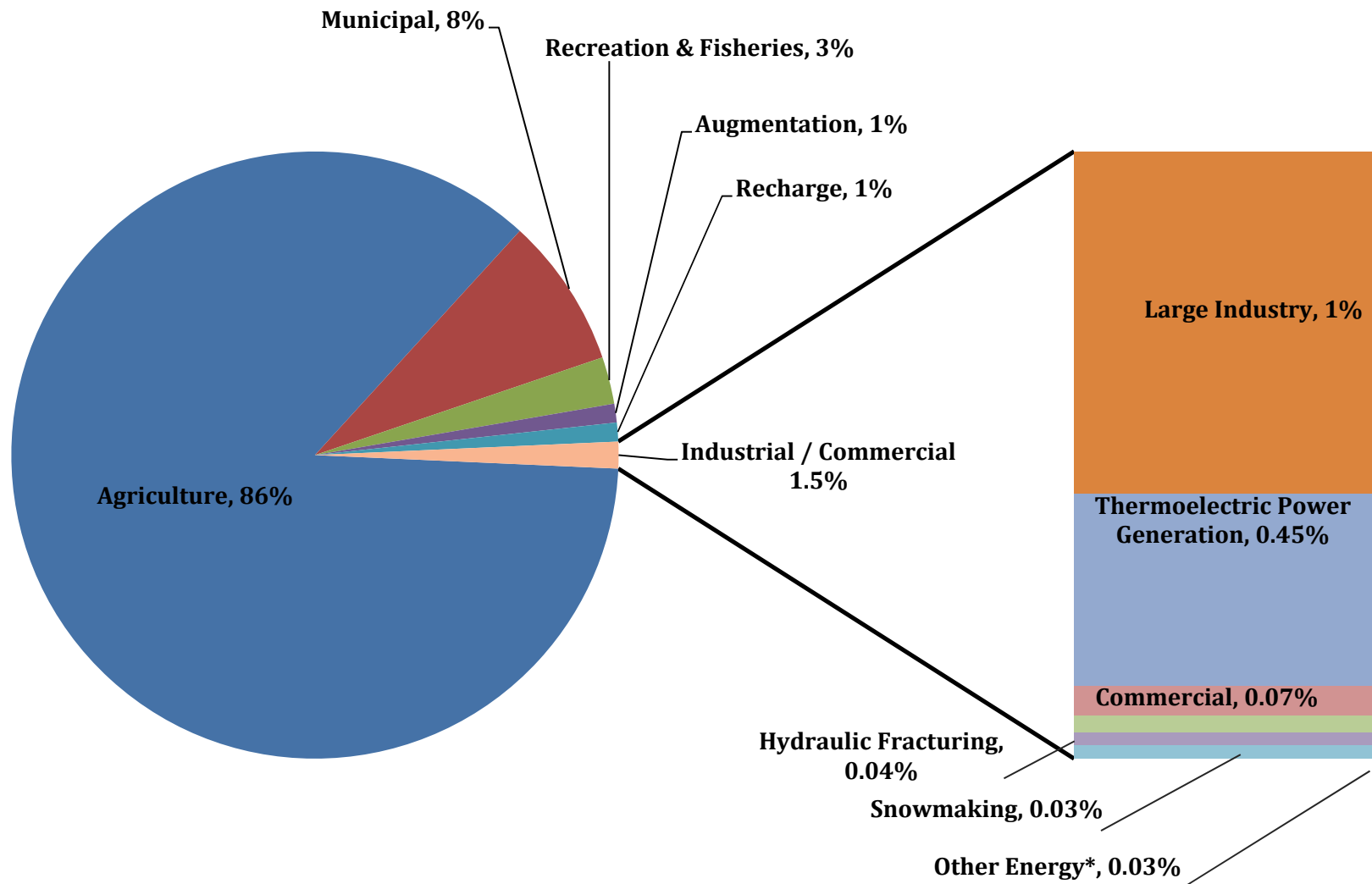
Colorado fell from second in 2012 to eighth in 2013 in the amount of LEED-certified space per capita



Source: U.S. Green Building Council - eleven states are shown, NY and CA tied

Colorado Water Consumption by Industry Sector

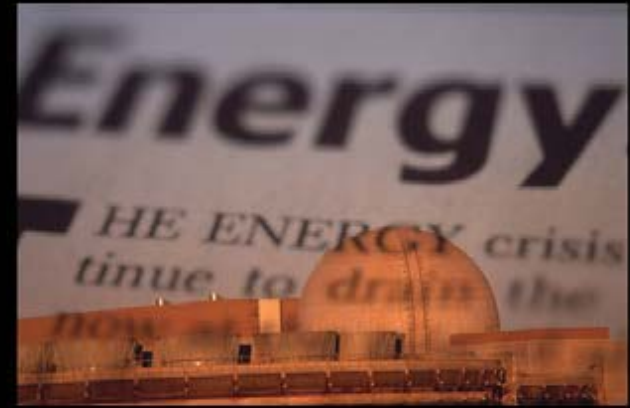
Agriculture uses the majority of CO water; energy sector consumes less than 1% of total



Source: Colorado Foundation for Water Education; CO Division of Water Resources

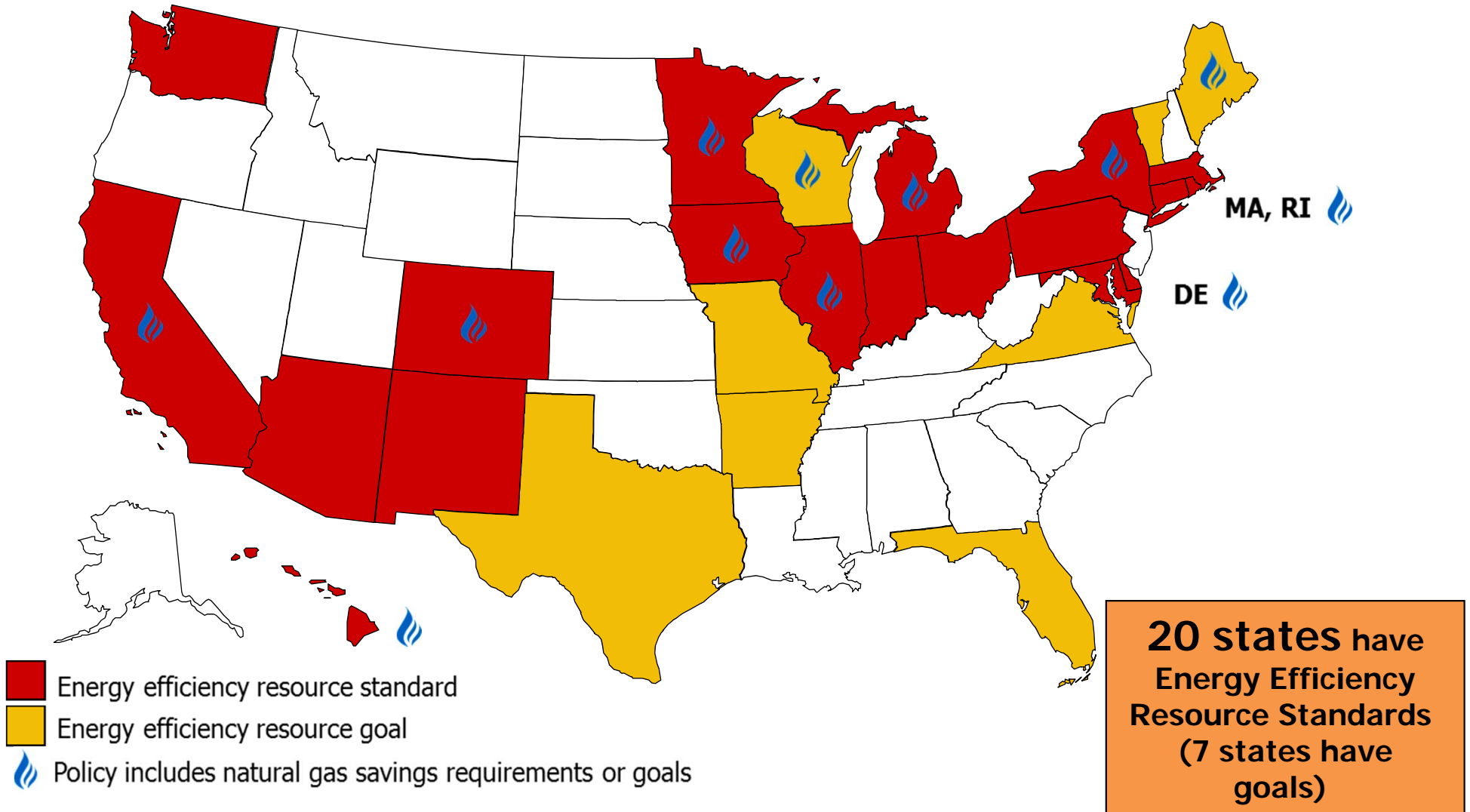
* = "Other Energy" is solar, coal, natural gas, and uranium development

Energy Policies & Programs



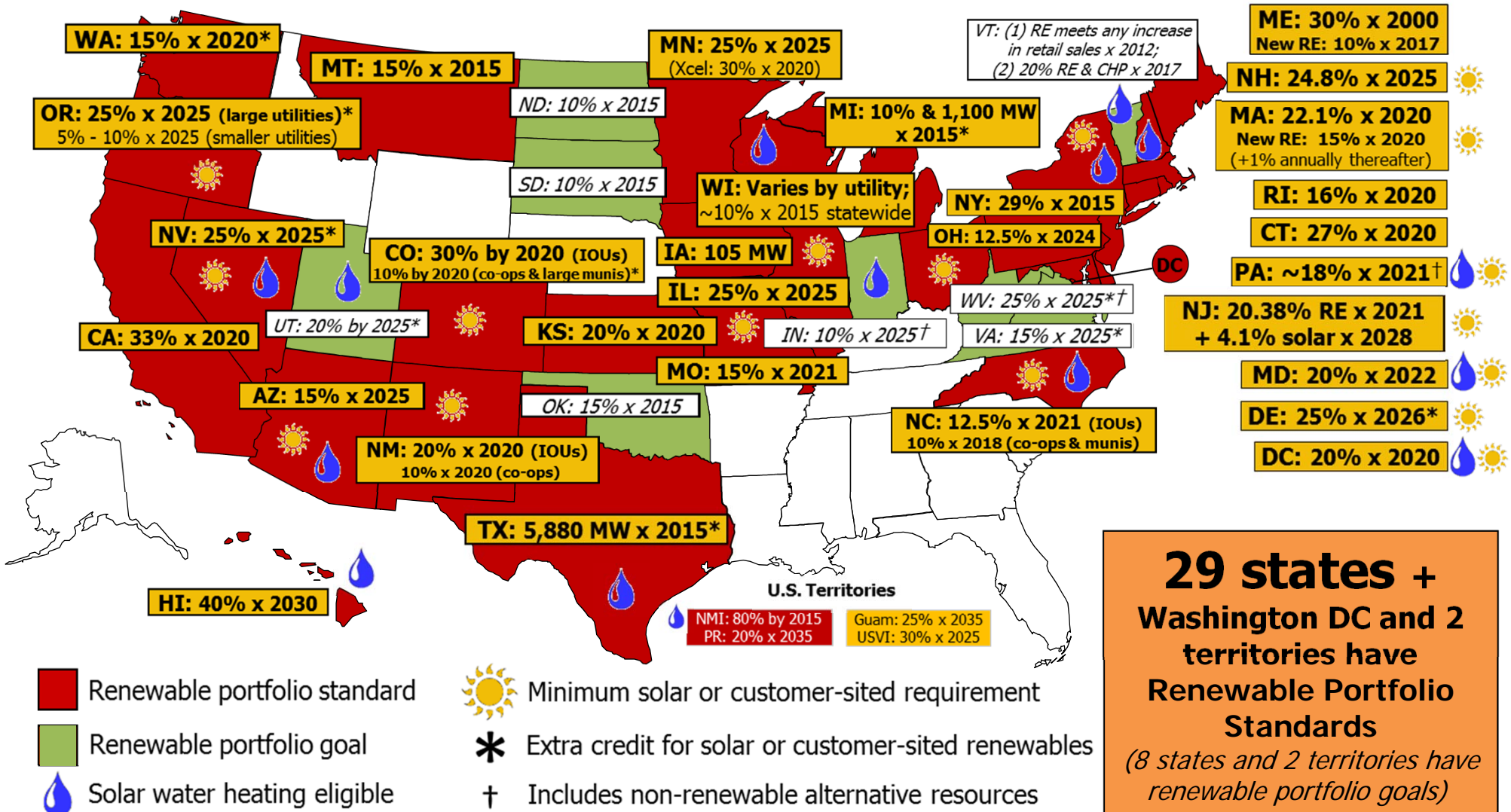
Energy Efficiency Policies, 2012

Colorado requires electricity sales and demand to be reduced by 5% of 2006 numbers by 2018; natural gas savings requirements vary by utility



Renewable Energy Policies, 2012

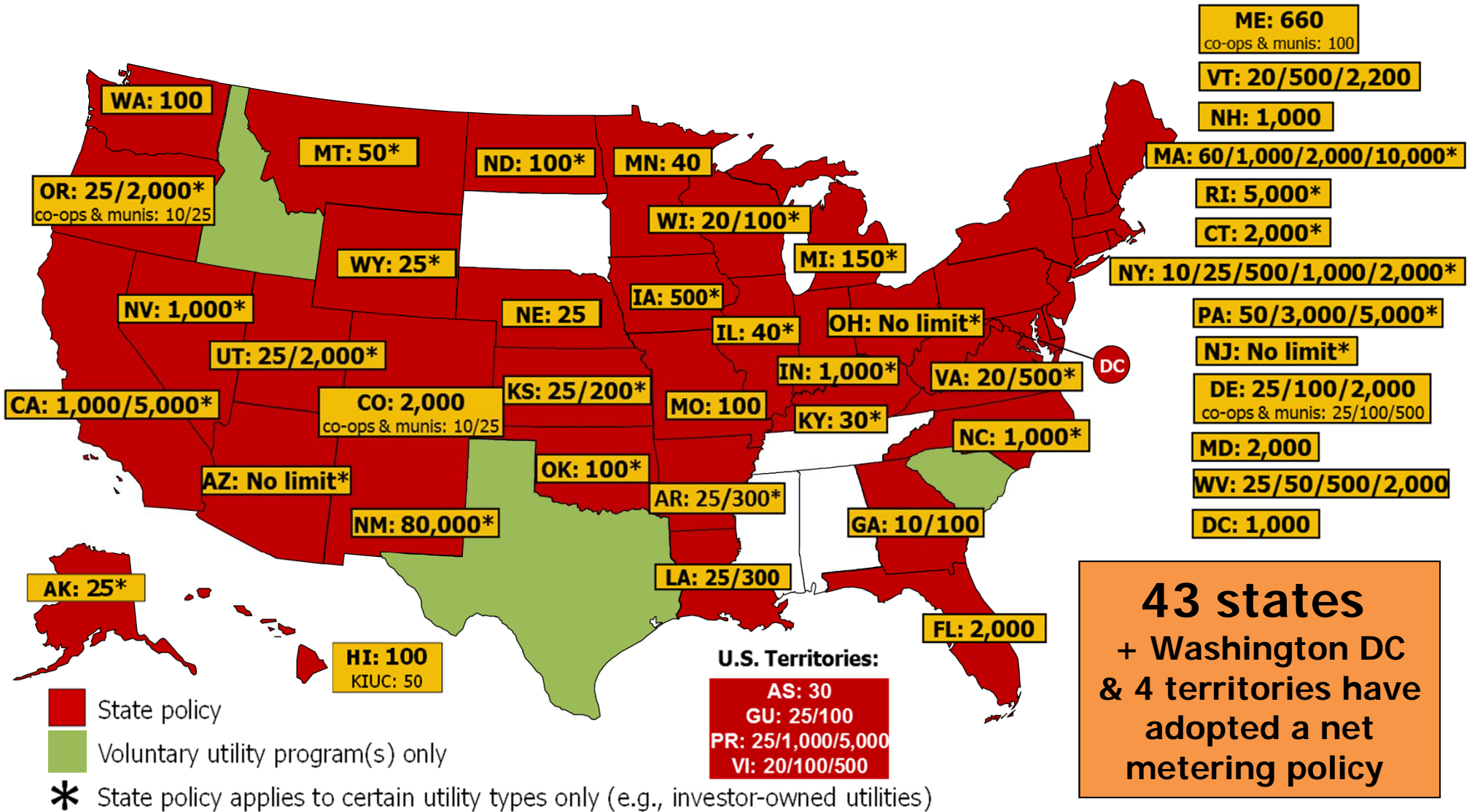
Colorado has a Renewable Portfolio Standard (RPS) of 30% by 2020 for investor owned utilities, 20% by 2020 for rural cooperatives, and 10% by 2020 for large munis



29 states + Washington DC and 2 territories have Renewable Portfolio Standards
(8 states and 2 territories have renewable portfolio goals)

Net Metering Policies, 2012

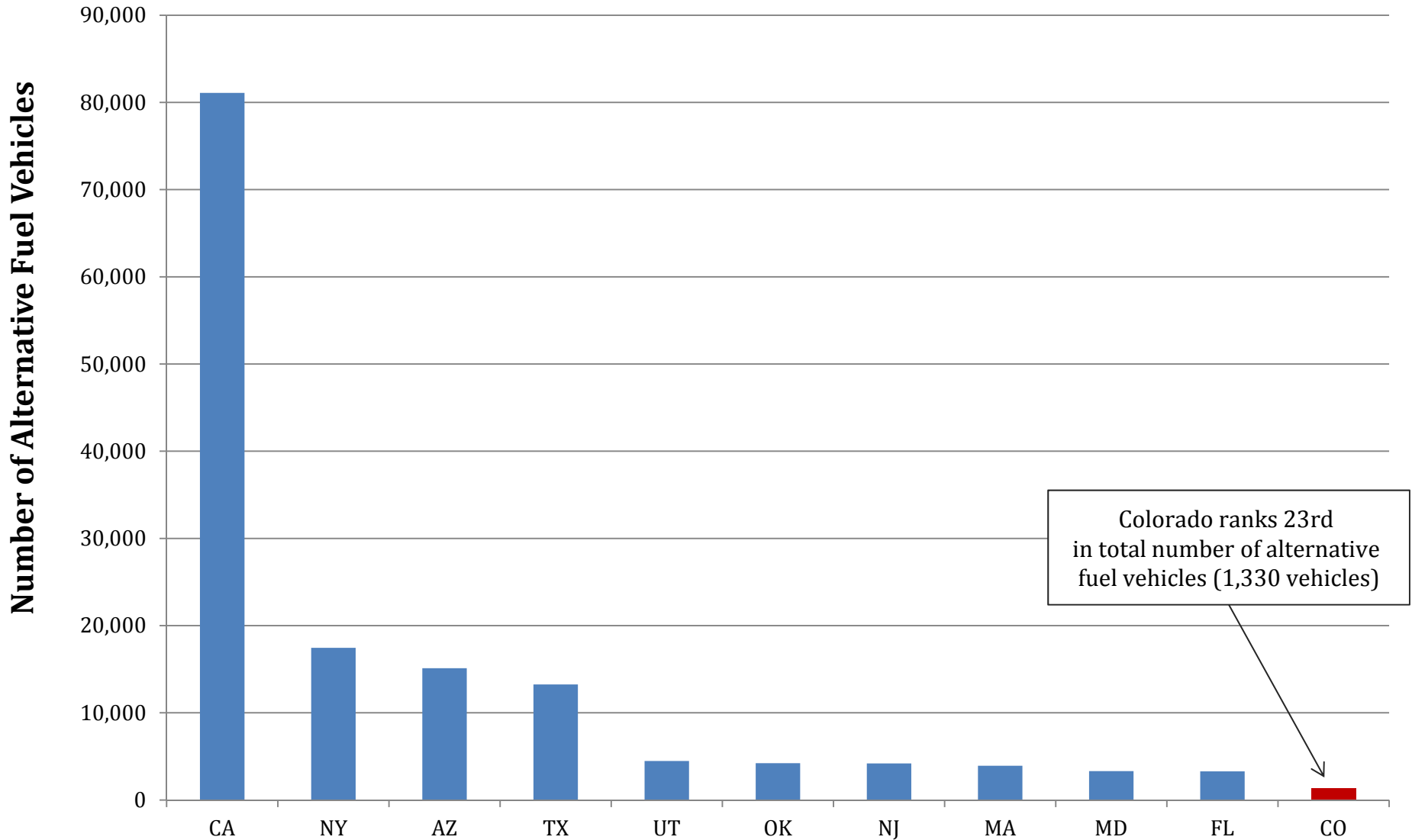
Colorado requires that a customer's excess generation during a calendar year be reimbursed by their utility



Note: Numbers indicate individual system capacity limit in kilowatts. Some limits vary by customer type, technology and/or application. Other limits might also apply. This map generally does not address statutory changes until administrative rules have been adopted to implement such changes.

Alternative Fuel Vehicles, 2011

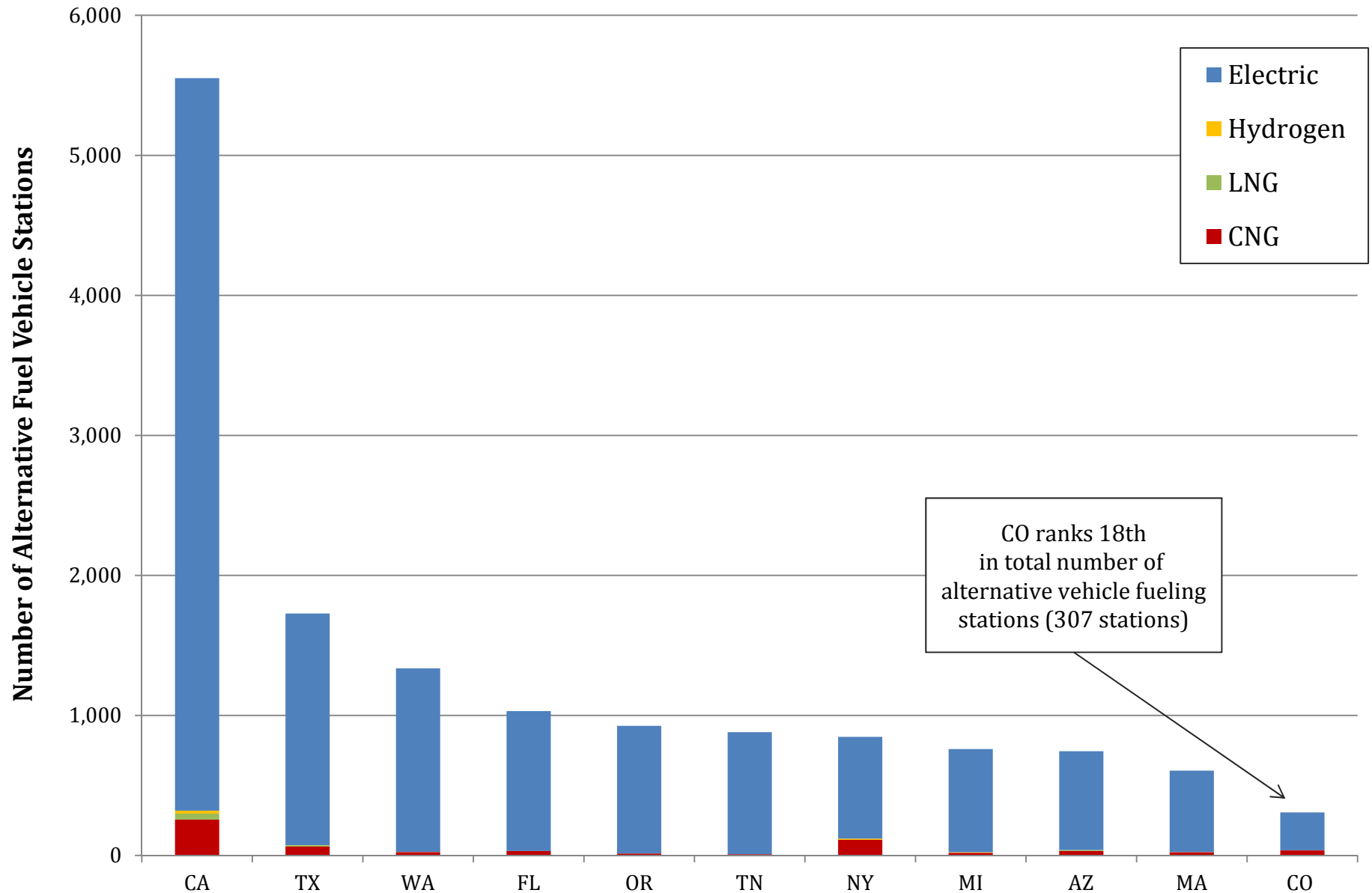
Recent state policies may begin increasing the number of alternative fuel vehicles in Colorado



Source: U.S. Department of Energy; Energy Information Administration

Note: Includes compressed natural gas (CNG), liquefied natural gas (LNG), hydrogen, and electric vehicles; all types, classes, and uses; Top ten states plus Colorado

Alternative Fuel Vehicle Stations, 2013

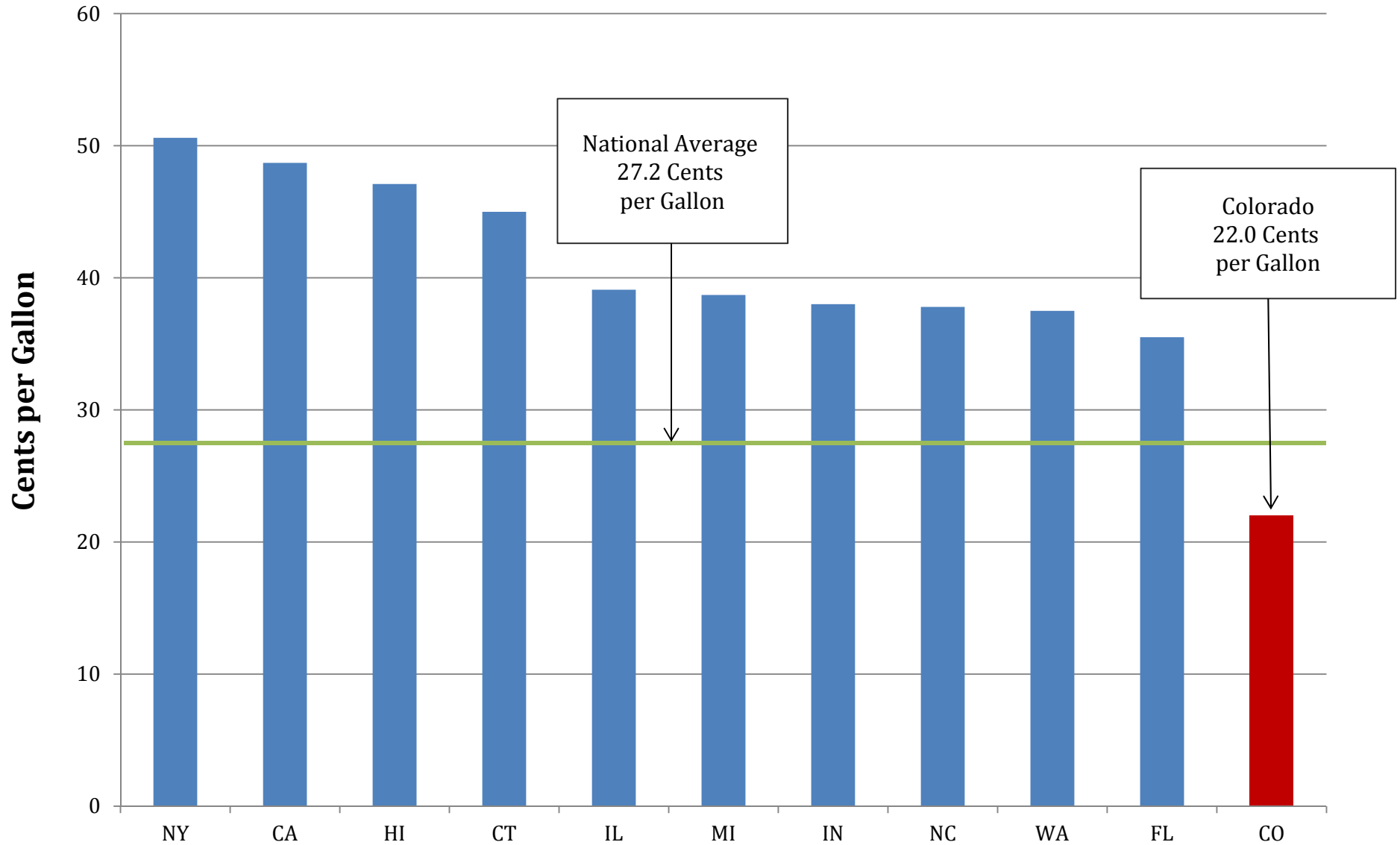


Source: Department of Energy; Alternative Fuels Data Center

Note: Includes compressed natural gas (CNG), liquefied natural gas (LNG), hydrogen, and electric; Top ten states plus Colorado

State Gasoline Tax, 2013

Colorado ranks 33rd in the nation; well below the national average

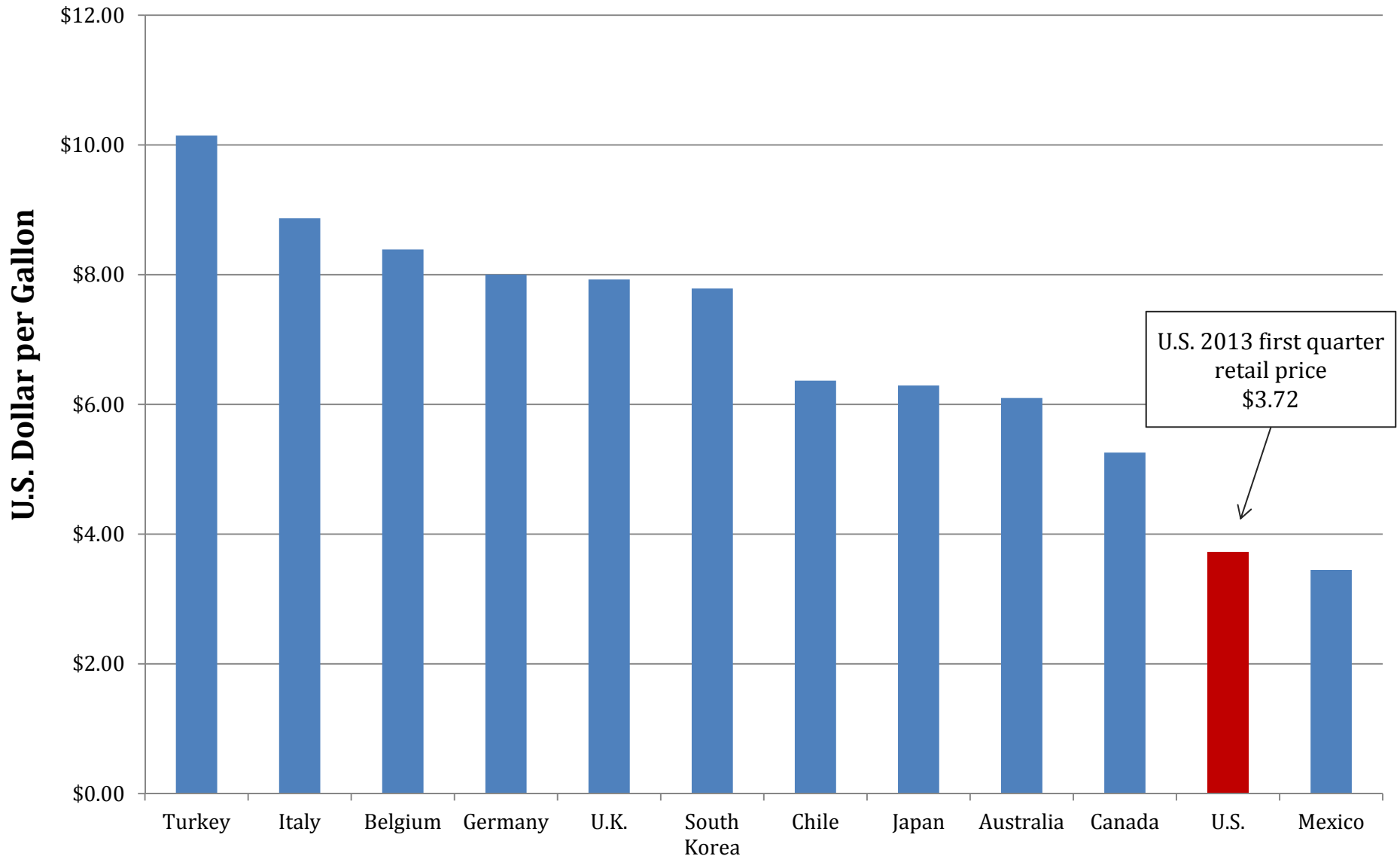


Source: American Petroleum Institute
Note: Top ten states plus Colorado

Fig. 50

Global Retail Prices of Premium Unleaded, 2013

U.S. gasoline is inexpensive compared to most countries; limited resources, limited infrastructure, and fuel taxes contribute to higher prices



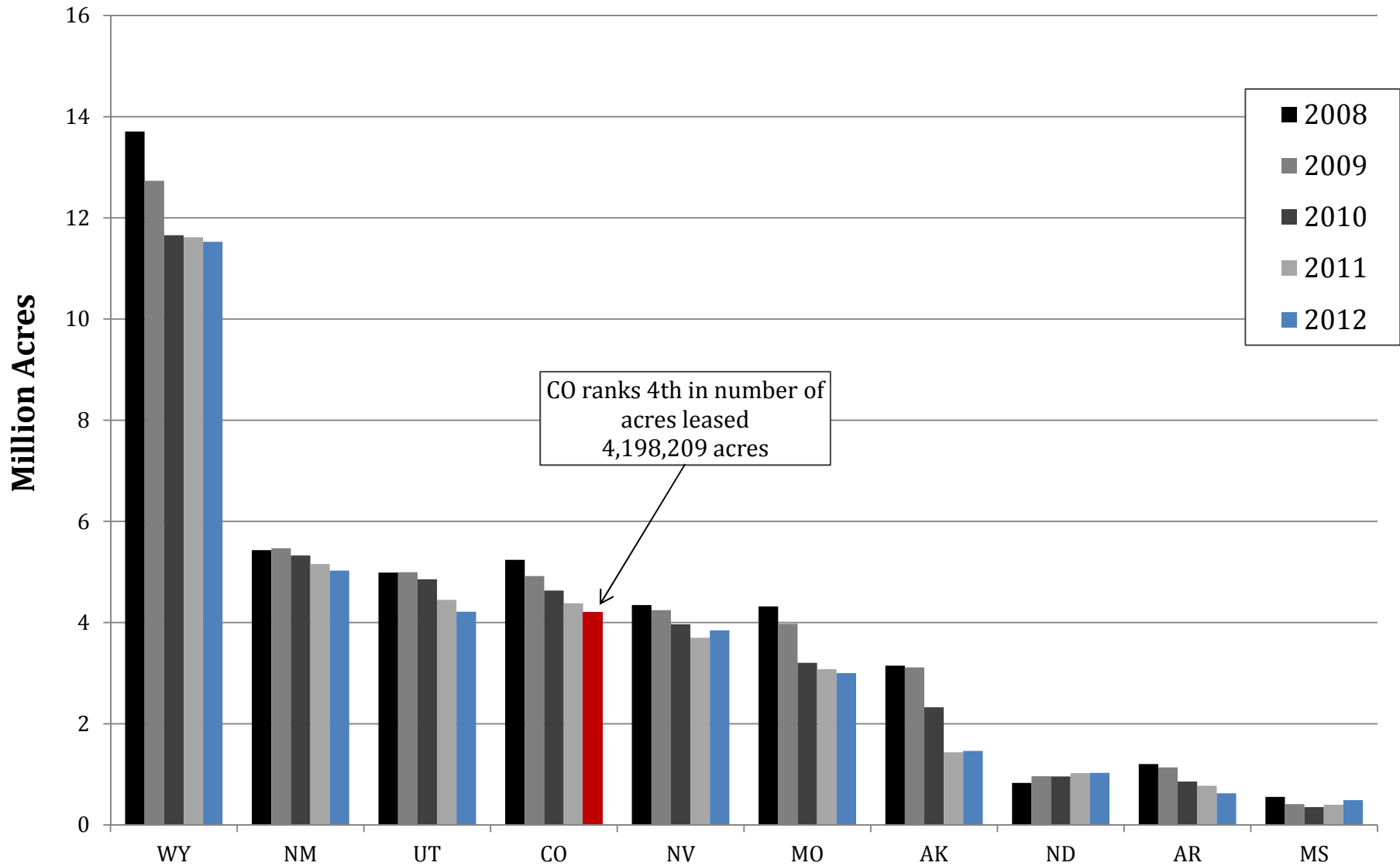
Source: International Energy Agency, 2013 Key World Energy Statistics

Note: Gasoline prices are from 1st quarter of 2013

Fig. 51

Number of Acres Leased for Drilling Public Lands

Colorado has 4th highest number of acres leased; increased oil and gas activity on private lands contributes to decrease



Source: Bureau of Land Management, Public Lands Statistics
 Note: Top ten states including Colorado

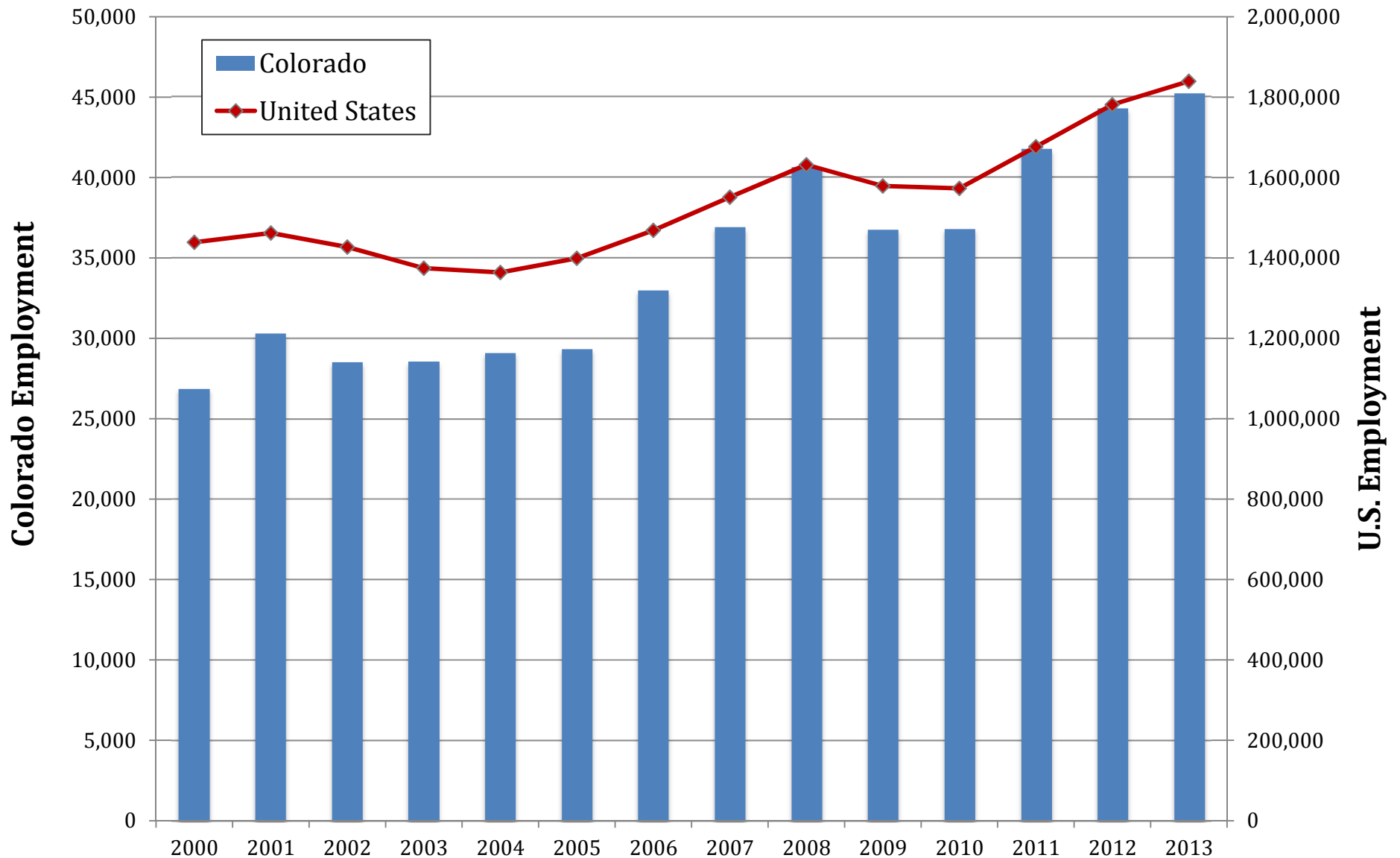
Fig. 52

Employment & Industry



Fossil Fuels - Number of Employees

Colorado fossil fuel sector is growing; 45,225 direct employees in 2013



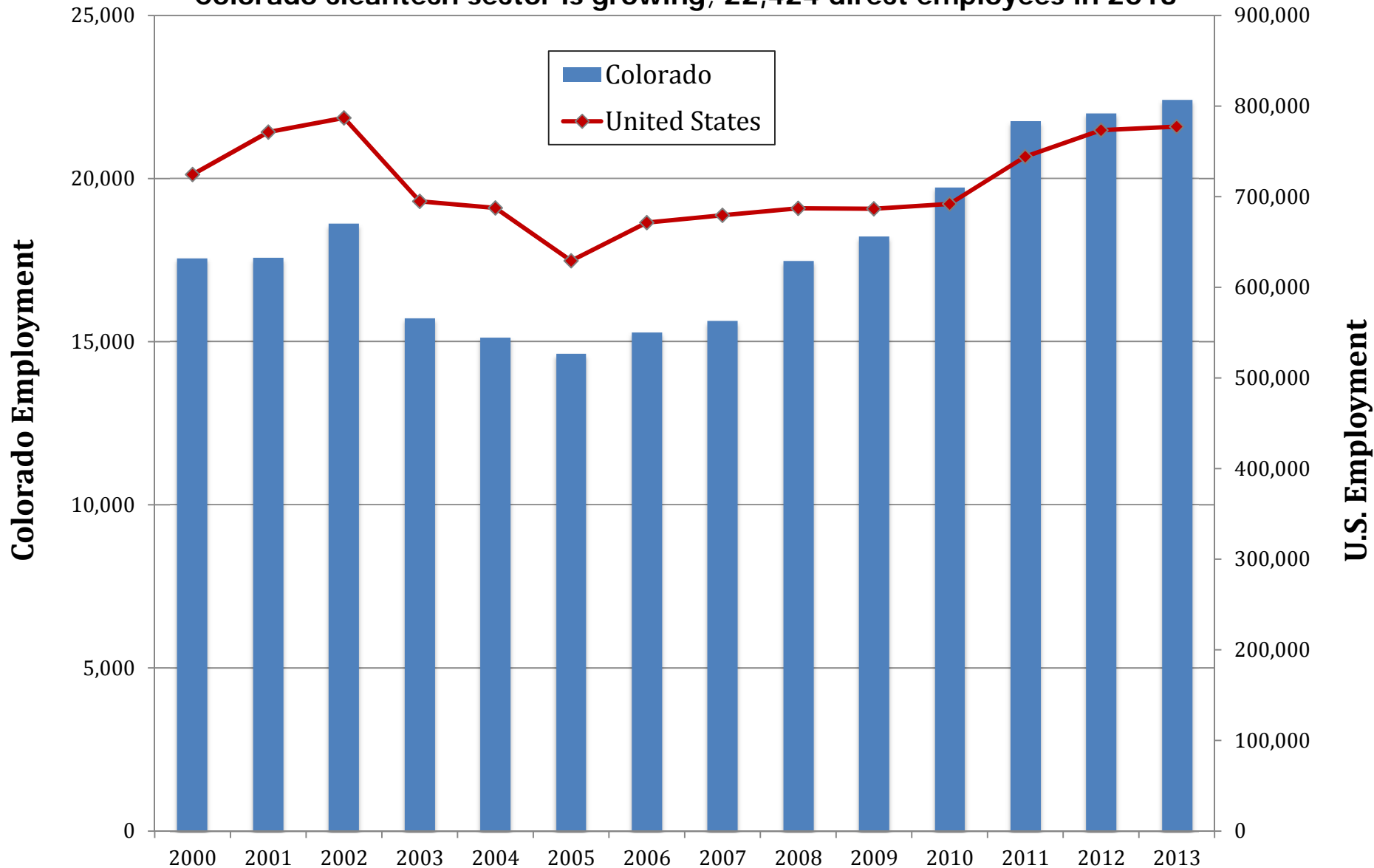
Source: Dun & Bradstreet, Inc.; Marketplace database, July-September, 2007-2010; Market Analysis Profile, 2011-2013

Note: Employment represents the coal, oil, gas, pipeline, refinery, generation, transmission, distribution, and engineering services sectors

Fig. 53

Cleantech - Number of Employees

Colorado cleantech sector is growing; 22,424 direct employees in 2013



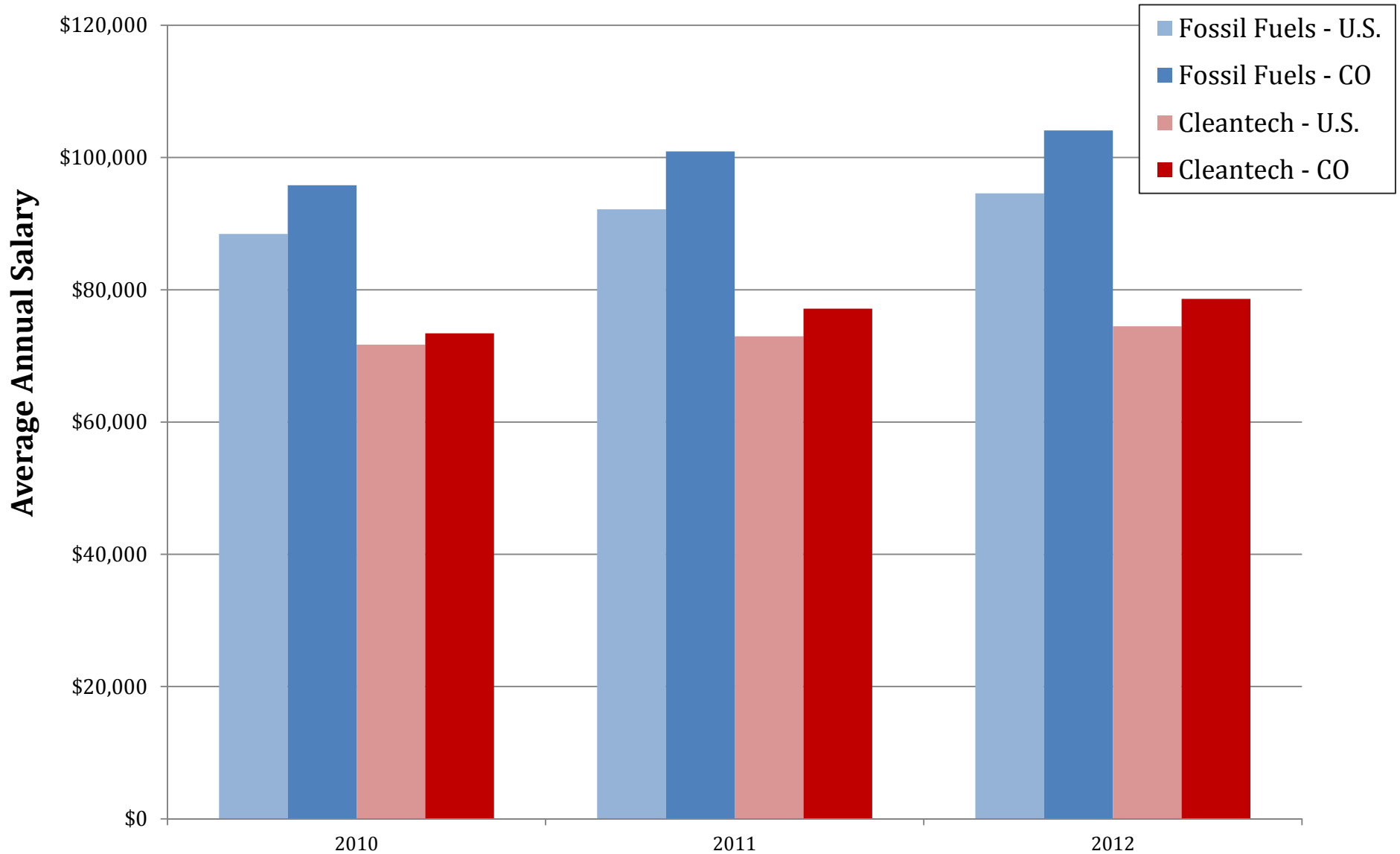
Source: Dun & Bradstreet, Inc.; Marketplace database, July-September, 2007-2010; Market Analysis Profile, 2011-2013

Note: Employment represents the solar, wind, geothermal, fuel cell, efficiency, storage, green transportation, cleantech R&D, and environmental consulting sectors

Fig. 54

Average Annual Salary

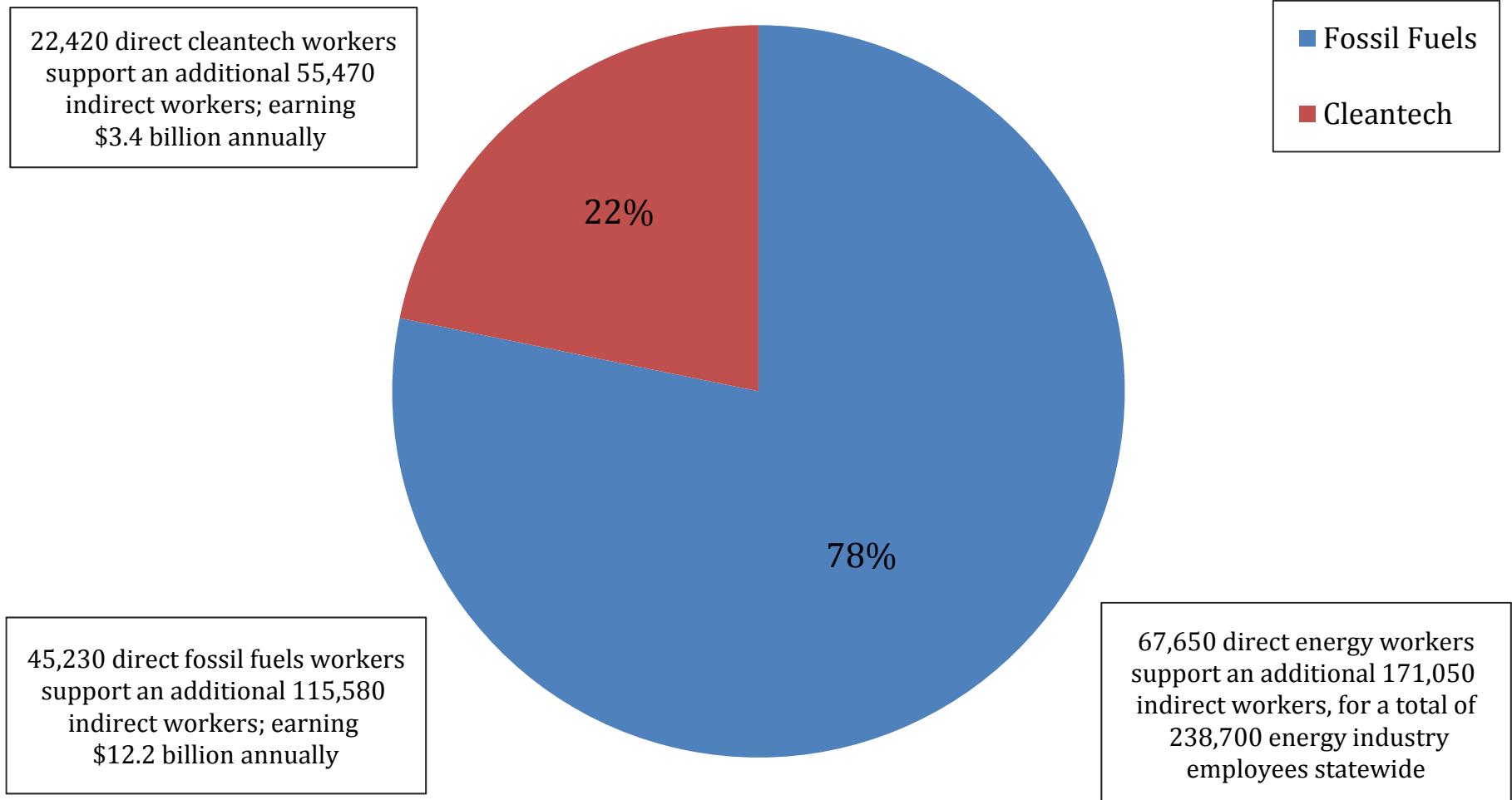
Fossil fuel wages tend to be higher than cleantech wages;
Colorado wages higher than national average



Source: 2013 Metro Denver EDC Energy Cluster Study

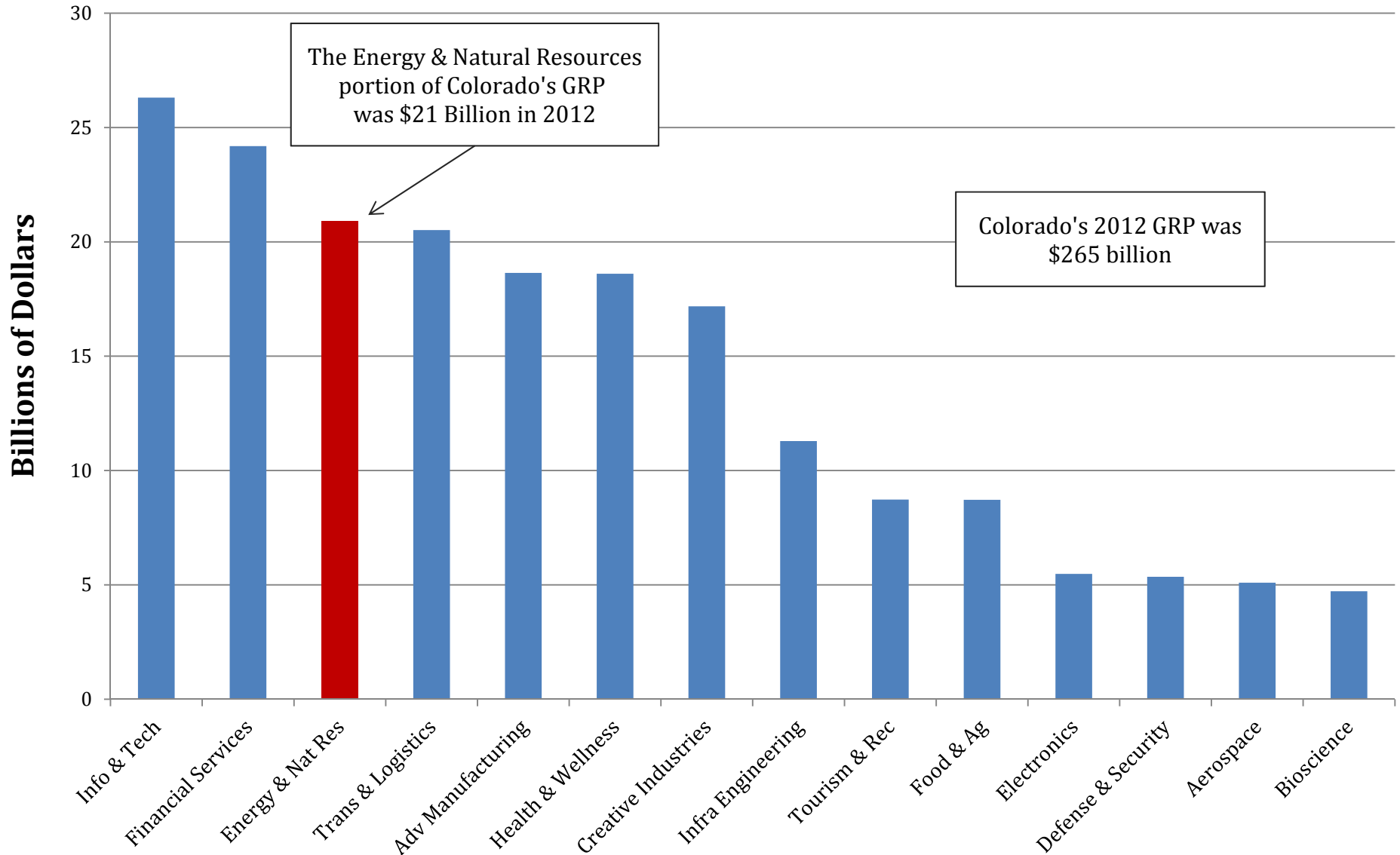
Economic Impact, 2013

The economic impact of Colorado's energy industry is \$15.5 billion; that is a 13.6% increase over 2012, which was \$13.7 billion



Colorado Key Industries, 2012

The energy and natural resources key industry represents 8% of the state's Gross State Product (GSP); GSP is the market value of all final goods and services produced in the state



Source: Colorado Office of Economic Development and International Trade (OEDIT), Economic Modeling Specialists International (EMSI)

Fig. 57



COLORADO ENERGY COALITION

Resource Rich Colorado

Fifth Edition

December 2013

REMI

- Regional Economic Models Inc. (REMI)
 - Dynamic economic modeling system
- Partners:
 - Common Sense Policy Roundtable
 - Denver South Economic Development Partnership
 - Metro Denver Economic Development Corporation
- REMI Tax-PI model built for Colorado
 - Economists: CU Leeds School of Business

REMI – 2014 Fracking Ban Report

- Colorado Oil and Gas
 - 75% of Colorado homes are fueled by natural gas produced in the state
 - 30% of Colorado's transportation fuel comes from the state's oil production
 - More than 60 years of hydraulic fracturing in Colorado, with approximately 95% of Colorado wells being "fracked" today
- Study Results – Fracking Ban: 2015-2040
 - 93,000 lost jobs – permanent loss
 - \$12 billion in lost State GDP
 - Reduction of \$985 million in local and state tax revenue



Q&A



*THANK YOU
FOR JOINING US!*