



# CHANGING THE NARRATIVE

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JASON HAYES

AMERICAN COAL COUNCIL

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NCCI 2014 SUMMER TRADE SEMINAR

MYRTLE BEACH, SC

# THE AMERICAN COUNCIL

We're proud to represent the interests of 170 companies across the coal chain.

Coal Suppliers

Coal Consumers

Transportation

Energy Traders

Coal Support Services

Contributing Supporters

**From the hole in the ground to the plug in the wall**

# AMERICAN COAL COUNCIL

## OUR VISION

Advancing the power, promise & pride of America's coal industry.

## OUR MISSION

To provides relevant educational programs, market intelligence, advocacy support and peer-to-peer networking forums.

## OUR INTEREST

The industry as a whole. Emphasizing members' commercial and professional development interests.

## OUR ACTIVITIES

We support activities and objectives that advance coal supply, consumption, transportation and trading for industry, policy makers and public interest groups.



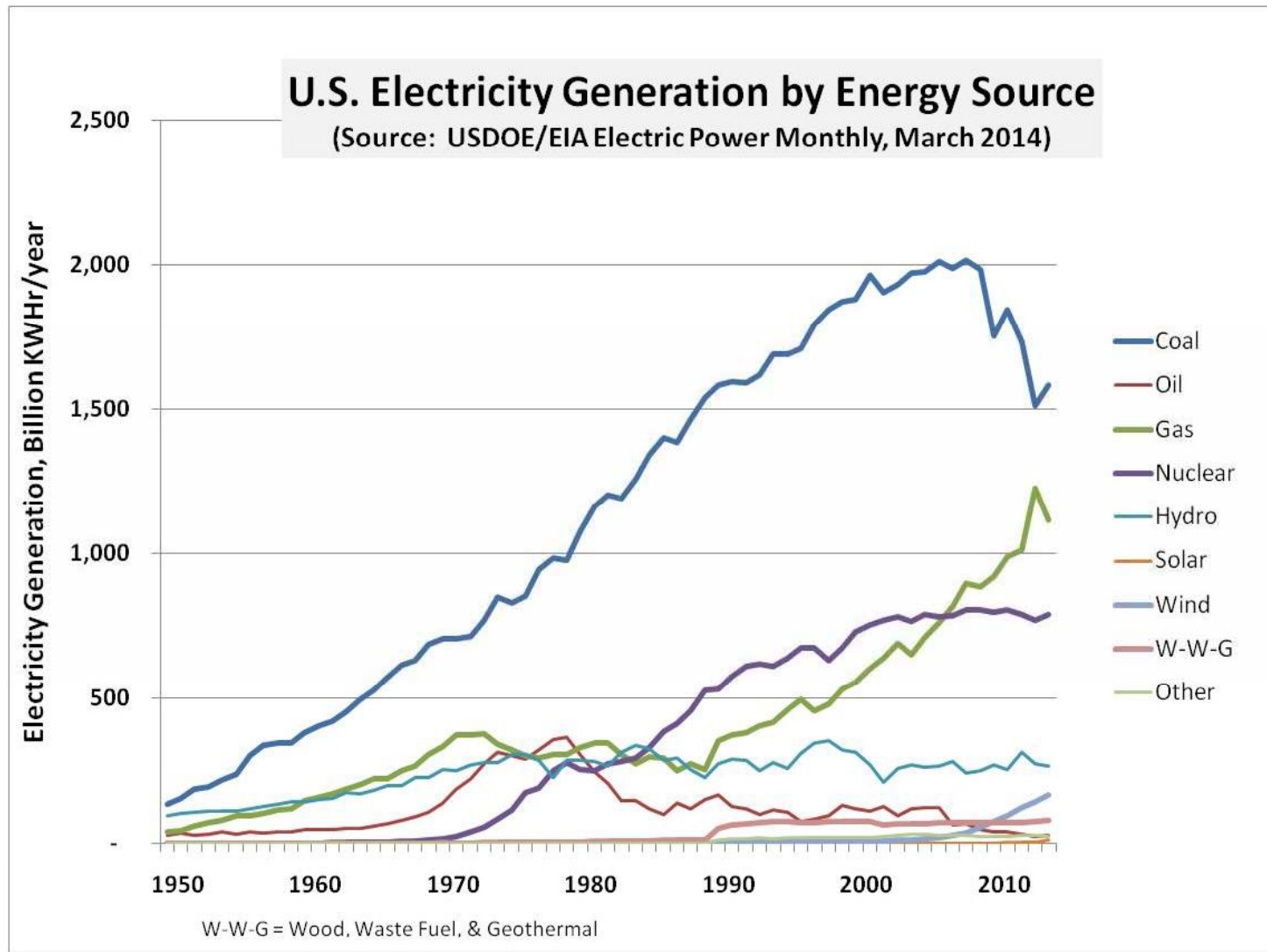
MARKETS

REGULATION

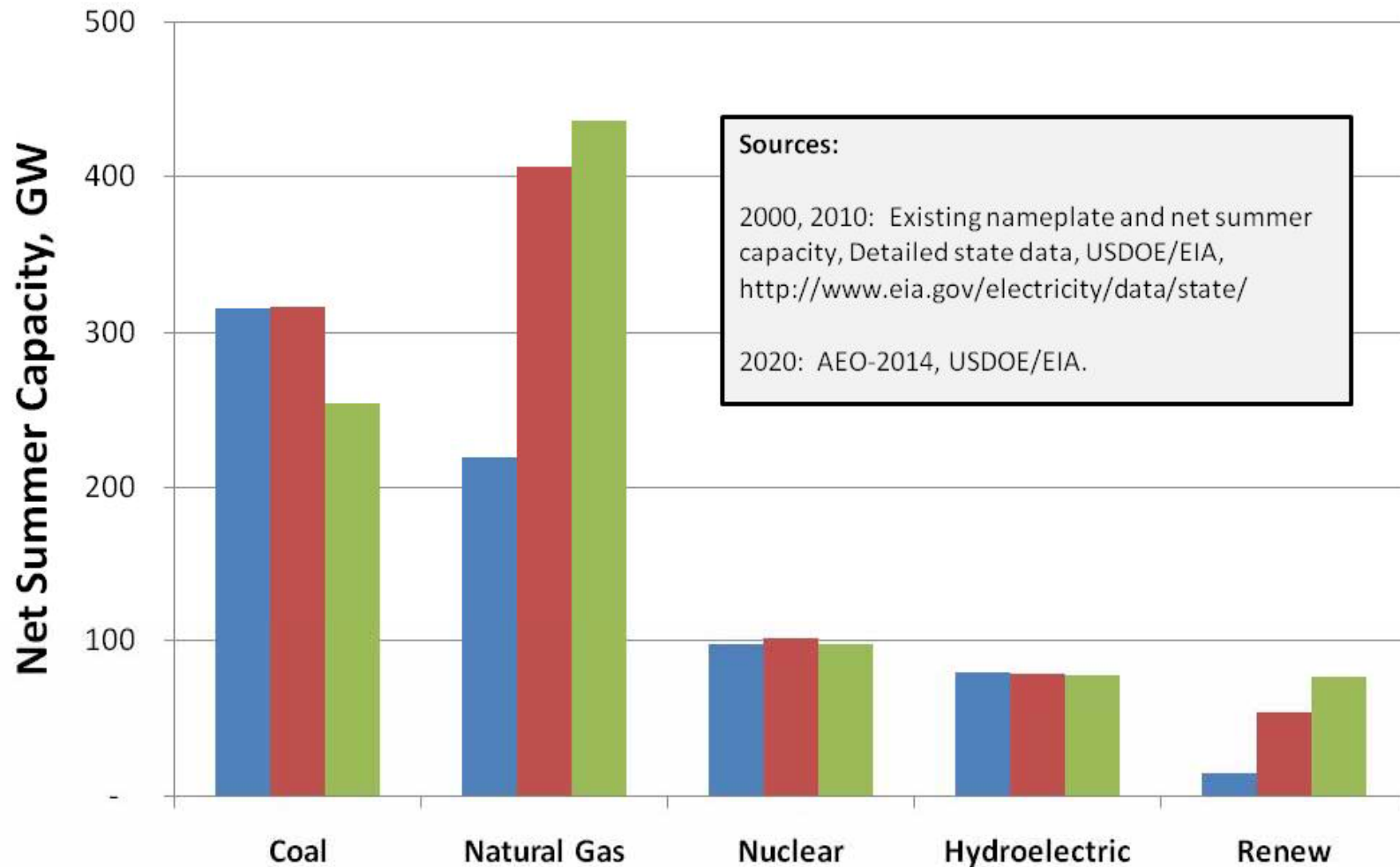
TECHNOLOGY

MARKETS

# PROFILE OF EXISTING FLEET – 310GW

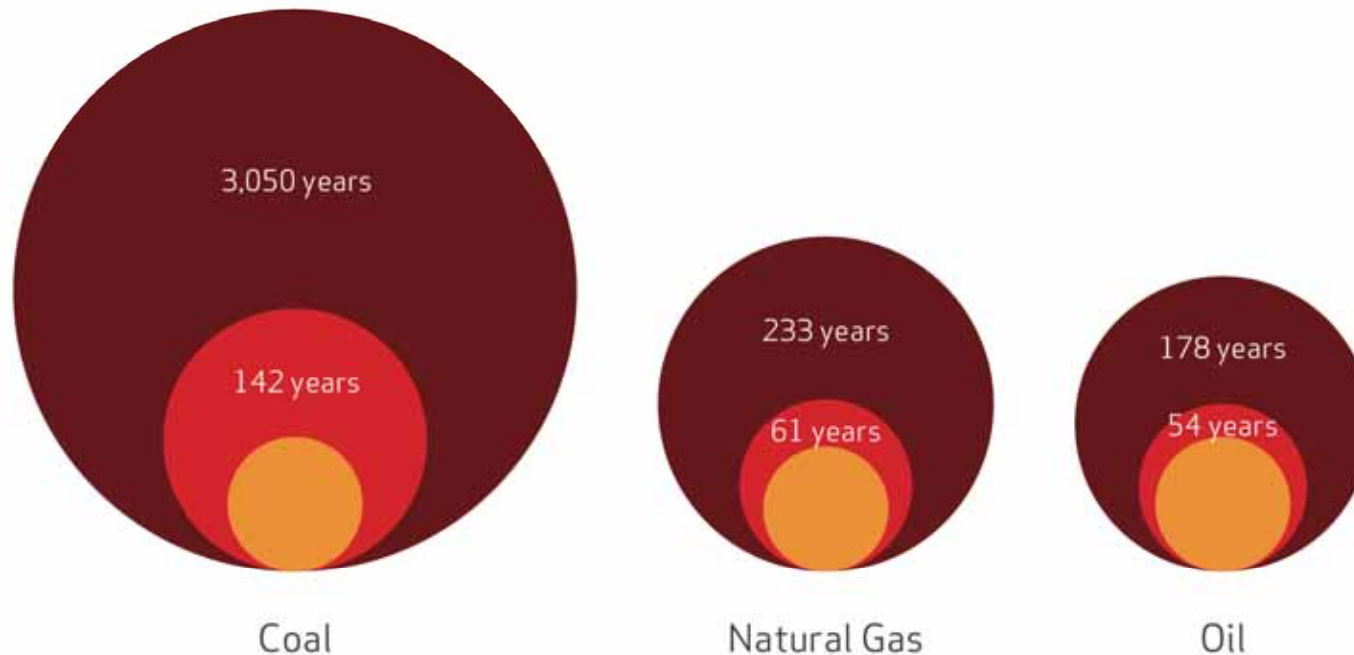


# PROJECTED 2020 ENERGY CAPACITY



Source: NCC

# FOSSIL ENERGY RESOURCES

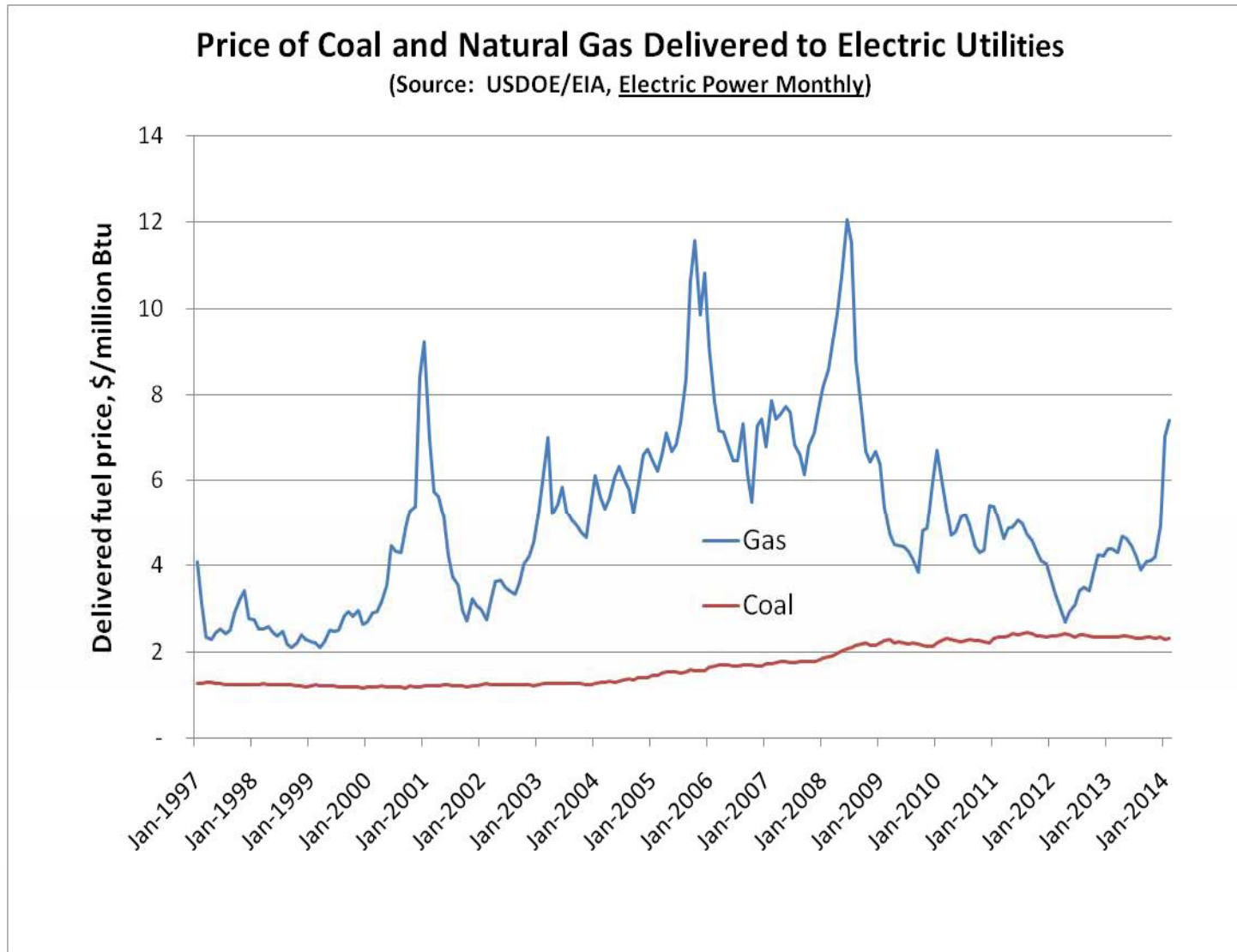


- Total remaining recoverable resources
- Proven reserves
- Cumulative production to date

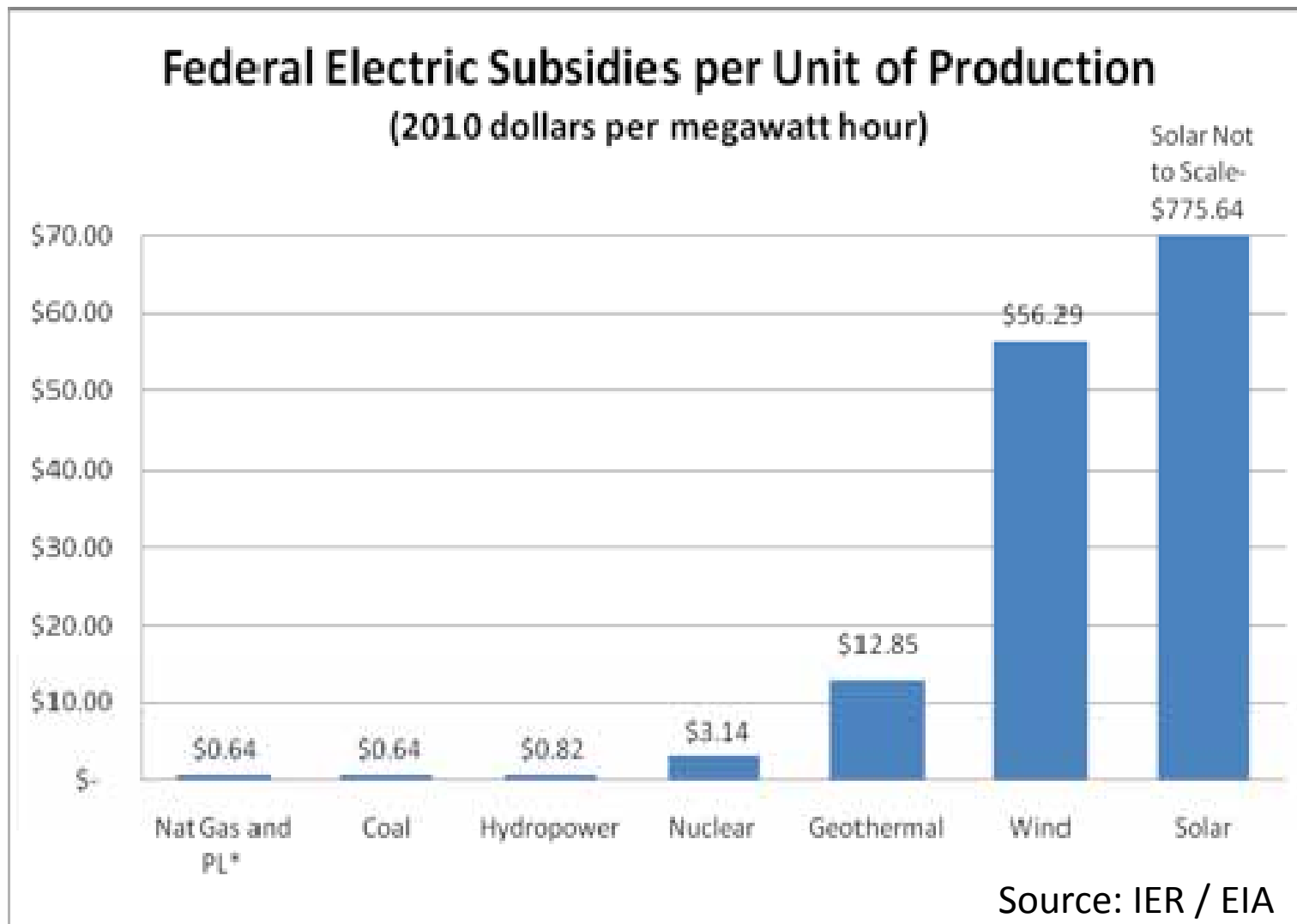
Source: IEA World Energy Outlook 2013 & World Coal Association



# SUPPLY & PRICE STABILITY



# FEDERAL ELECTRIC SUBSIDIES



# COAL STATES PAY ~33% LESS FOR ELECTRICITY



Source: Peabody U.S. EIA, 2012 data, Feb. 2013, average retail electricity prices per kWh. Weighted average of CA and NE states equals 14.2 cents per kWh. ID,OR,WA excluded due to hydropower.

# WITHOUT COAL

## Compare - U.S.A.

- ~40% energy from coal
- 12.5 cents/KWh

## Germany

- 40 cents/KWh
  - Wind & solar subsidies
  - Opposition to nuclear
- **Building 10 coal plants in 2 years.**





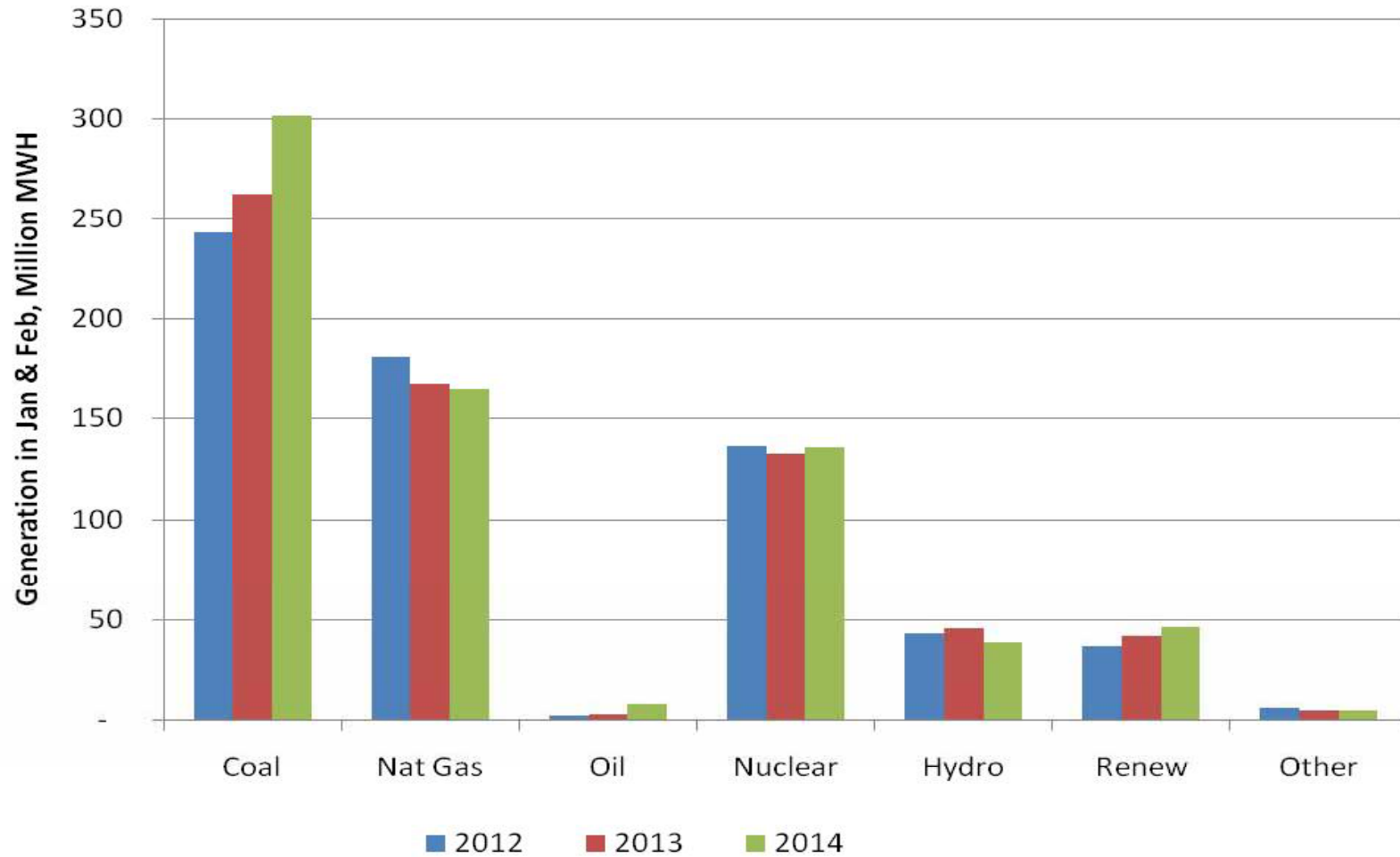
“British Pensioners burn old books to keep warm because it is cheaper than coal; they ride on heated buses all day, and a third leave part of their homes cold.” – Bjorn Lomborg

# GENERATION RETIREMENTS

- 51.3 GW / 338 coal-fueled EGU closures linked to EPA regs | 62.5 GW / 421 total closures (As of May 2014)
  - >\$200 billion in compliance costs / at least 544,000 jobs
- First Energy – Hatfield’s Ferry & Mitchell closed due to MATS costs & low power prices
  - \$700 million in 2009 on scrubber
- TVA – Widow’s Creek, Colbert, Paradise also closed due to MATS & GHG regs
- AEP targeting closures 6586 MW of coal closures “to comply with new environmental regulations”

## U.S. Electricity Generation for January & February, 2012-2014

(Source Data: USDOE/EIA [Electric Power Monthly](#))



**“This country did not just dodge a bullet – we dodged a cannonball.”**

**Nick Akins, CEO, American Electric Power**

Source: NCC

# REGULATIONS





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*but one*  
**ALL** <sup>^</sup> *of the* **ABOVE**

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President Obama's approach to energy independence

# IMPENDING REGULATIONS

- **Carbon/GHG  
Clean Air Act S.  
111**
- **Waters of the U.S.**
- **MATS**
- **CAIR/CSAPR**
- **MSHA's Coal Dust  
Rule**
- **Coal Combustion  
Residuals**





*“Behold my display of the 2013 Federal Register. It contains over 80,000 pages of new rules, regulations, and notices all written and passed by unelected bureaucrats. The small stack of papers on top of the display are the laws passed by elected members of Congress and signed into law by the president.”*

**Sen. Mike Lee, R-UT - @SenMikeLee**

# IMPENDING REGULATIONS

- Heritage Foundation estimate costs of EPA regs. aimed at phasing out coal
  - By 2023, 600,000 jobs lost
  - 270,000 lost manufacturing jobs
  - Family of 4 annual income drops by \$1,200/yr
  - Aggregate GDP decrease by \$2.23 trillion over period of analysis
  - Increase cost of natural gas by 28% (by 2030)
- “...proposed (NSPS GHG) rule will result in negligible CO<sub>2</sub> emission changes, quantified benefits, and costs by 2022.” --EPA

# IMPENDING REGULATIONS

- ACCCE/NERA study critiques NRDC “CO<sub>2</sub> Standard” report
  - \$116 to \$151 billion in costs from 2018 to 2033
  - Up to 2.85 million lost job years
  - Electricity rates “increase by double digits in 29 states.”
  - Coal retirements up to 83GW / up to 124GW when other regs are included
  - Nat gas prices increase by up to 16%
- Removal of all U.S. coal – “reduce average global temp increase by 0.05 deg. F by 2050”

# EPA & ENVIRONMENTAL GROUPS

- FOIA'd emails reveal “uncomfortably close working relationship” between EPA and environmental groups
  - Groups listed coal plants they want blocked by EPA standards
  - Undisclosed meetings held with high-level EPA and Sierra Club execs
  - Many other groups and meetings to discuss developing public support for NSPS GHG rule

Source: Energy & Environment Legal Institute

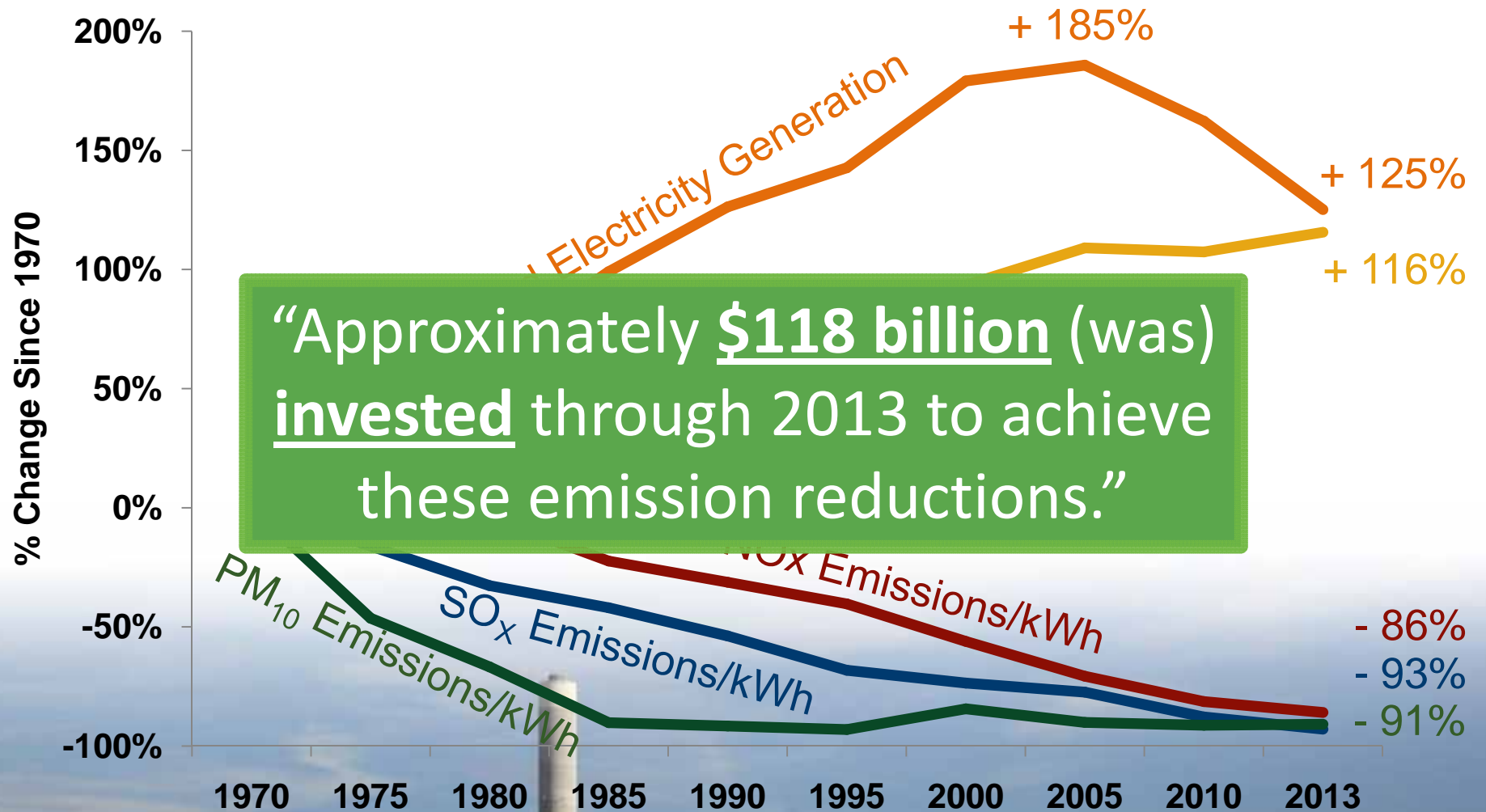
## EPA's "Secret Science"

“The studies used to support the 1997 PM2.5 standard have ***never been independently reproduced or validated***, and EPA has successfully ***resisted all attempts*** – including a 2000 Freedom of Information Act request from the U.S. Chamber – ***to obtain the data underlying the studies*** upon which EPA based its standards.”

Source: US Chamber of Commerce

TECHNOLOGY





“Approximately \$118 billion (was) invested through 2013 to achieve these emission reductions.”

## Clean Coal Technologies Improve Air Quality

Source: USDA 2013, EIA 2013



# **CCS has not been adequately demonstrated.**

It's not met the standard EPA has used for the last 40 years that requires new technology also be cost-effective.

Jeffery Holmstead, former EPA Asst. Administrator  
USA Today Sept. 20, 2013

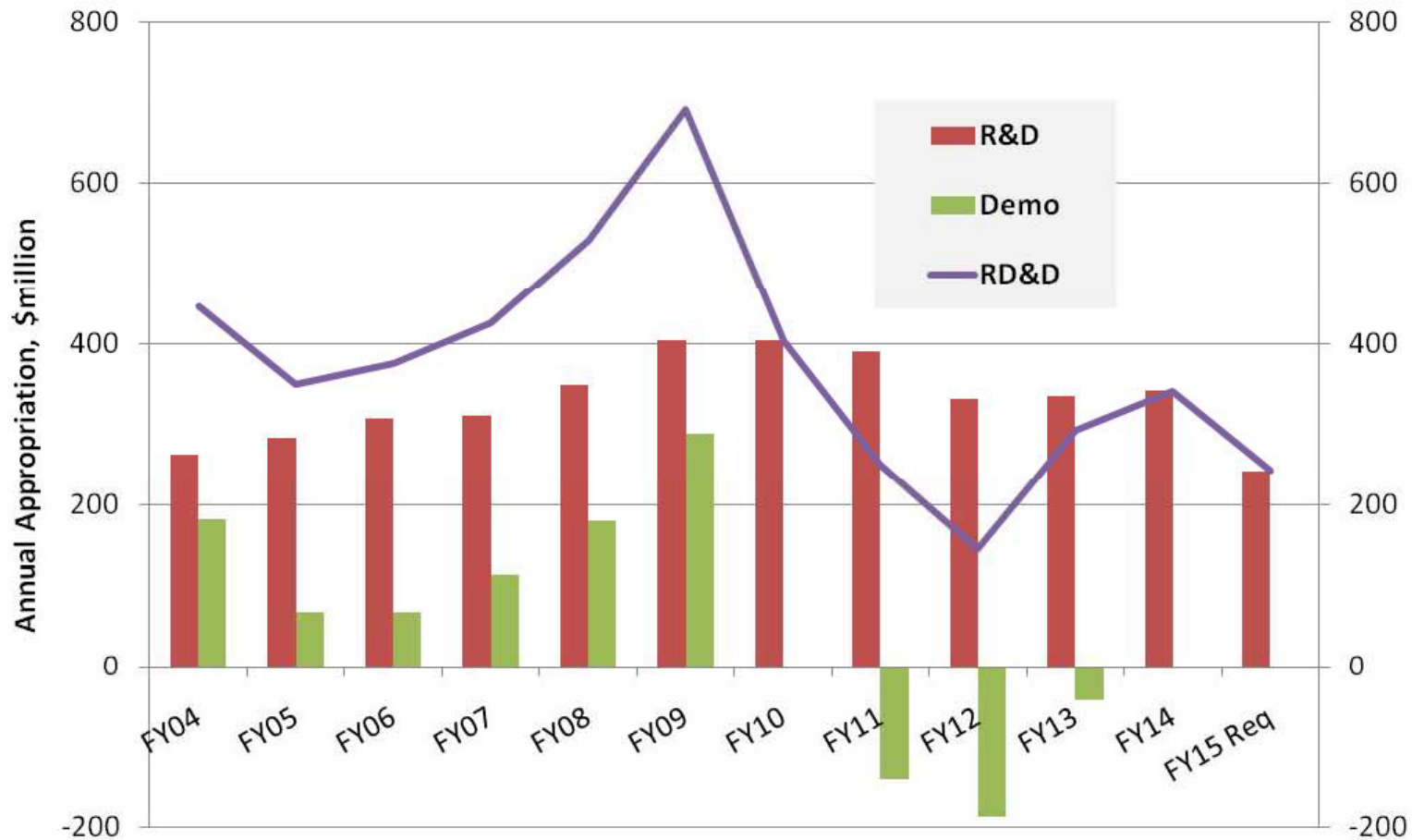
NSPS rule for new plants is anti-technology

“Under EPA’s proposal, industry (can’t) even ... build the most state-of-the-art clean coal-fired plant, because the technology required ... is not commercially feasible.”

Rep. Ed Whitfield (KY), Jan. 16, 2014  
OurEnergyPolicy.org

# REDUCED RD&D FUNDING

## DOE RD&D Budget for Coal Use Technologies

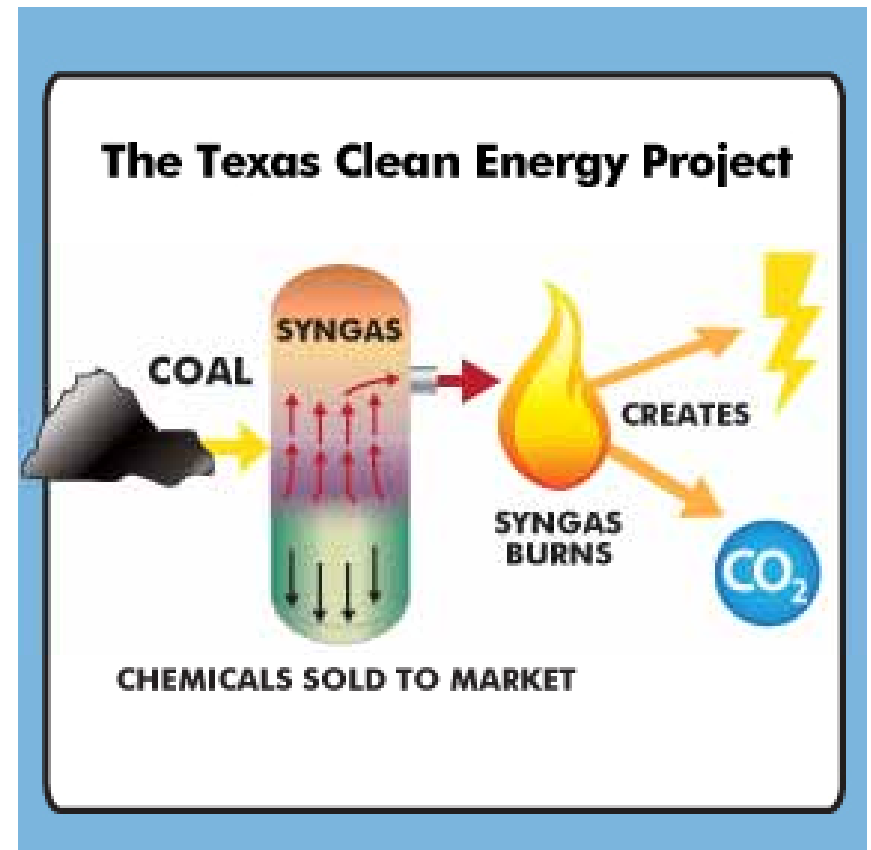


Funding excludes \$3.4B for demonstrations in ARRA, FY09.

Source: NCC

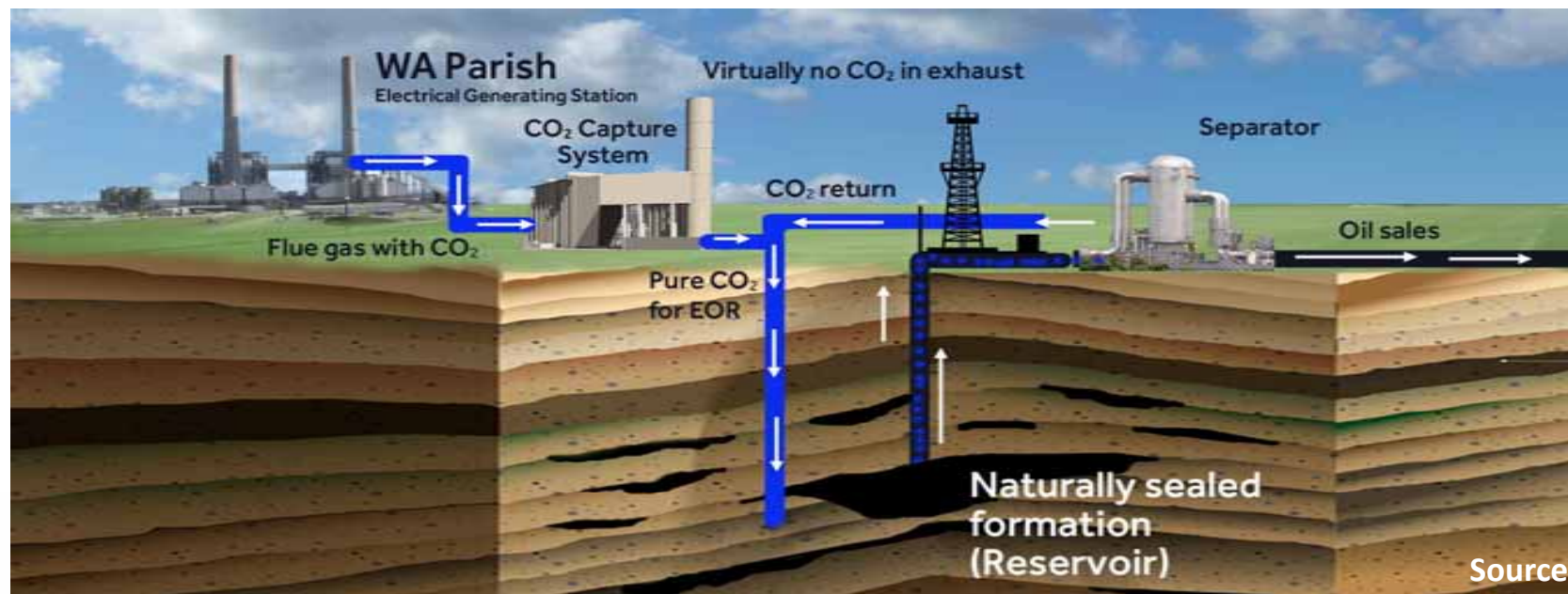
# TECHNOLOGY – TX CLEAN ENERGY PROJECT

- 400 MW gross polygen IGCC near Odessa (Penwell)
  - 195 MW electricity, 705K tons urea/yr, CO<sub>2</sub>, & other products
- NO<sub>x</sub>, SO<sub>x</sub>, PM below permitted limits
- CO<sub>2</sub> – 90% captured & sold for EOR
- Zero liquid discharge/reduced water consumption



# TECHNOLOGY – NRG WA PARISH RETROFIT

- 250 MW, SW of Houston, TX
- \$167 m DOE grant – retrofit existing plant
- Use or capture 90% of post-combustion CO<sub>2</sub> (1.65m tons/yr)
- Pipeline CO<sub>2</sub> to mature Gulf-Coast oil fields for EOR
- Commercial-scale CCS demo – Operational in 2016



Source: NRG

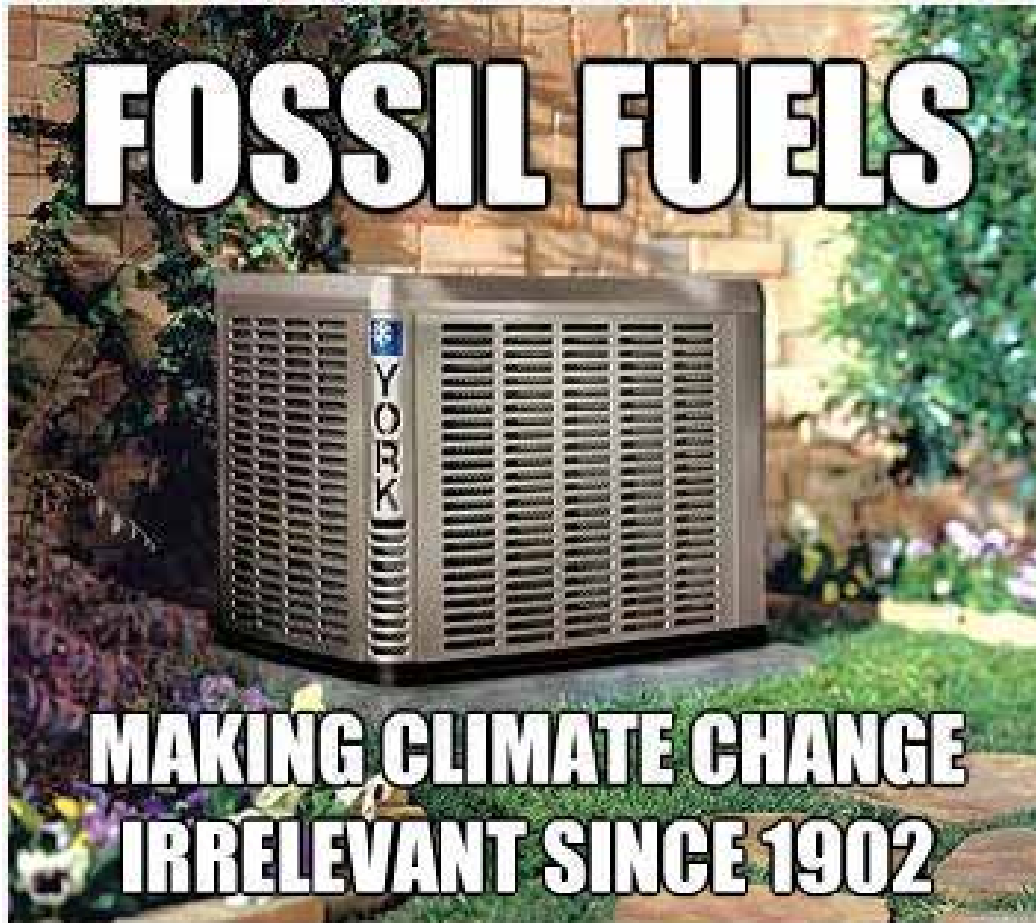
# TECHNOLOGY – KEMPER COUNTY



- Southern Co. / Mississippi Power
- IGCC – gasifier = reduced emissions
  - Capture 65% of CO<sub>2</sub> emissions = similar sized NGCC plant
  - CO<sub>2</sub> for EOR – increase oil output by 2 million barrels / yr
- Fuel diversity – Mississippi lignite (mine mouth operation)

NEXT STEPS?  
EDUCATE & ADVOCATE





“Fossil fuels don’t make a safe climate dangerous for humanity, they make a dangerous climate safe for humanity.”

Alex Epstein, Center for Industrial Progress

# THE FACTS ARE ON OUR SIDE

Refuse definition by negatives

“The electric power industry has come to be defined by its discharge, rather than its product (electricity) and the benefits of electricity.”

Jason Makansi, Pearl Street



# THE GREEN INDUSTRY



"They render industries uncompetitive and unable to hire. They mire increasing millions in fuel poverty. They doom energy costs to remain artificially high – and all for no discernible environmental benefit."

--Peter C. Glover and  
Michael J. Economides

## WHAT DO YOU VALUE?

“How much do you value human life? ...  
**The amount of carbon you use is directly proportional to the length and quality of human life.** ... When energy is affordable and available your people will live longer and better lives.”

Climate Scientist John Christy, April 18, 2014 interview comments

## A LITTLE PERSPECTIVE

**“(CO<sub>2</sub>) benefits clearly outweigh any hypothesized costs by ... orders of magnitude: ... from 50-to-1 to 500-to-1. ...**

The benefits of CO<sub>2</sub> overwhelmingly outweigh the estimated CO<sub>2</sub> costs no matter which ... discount rates are used.”

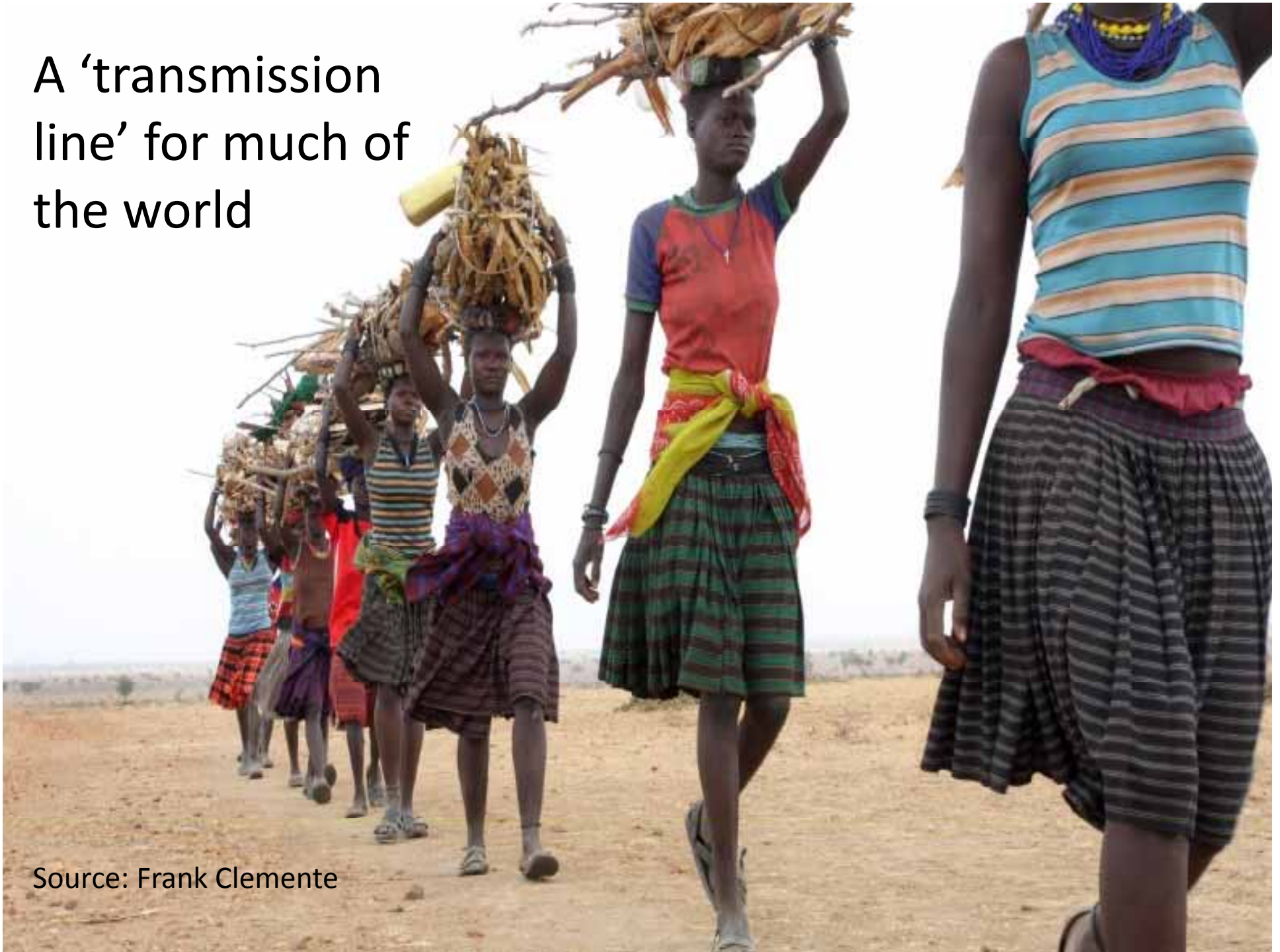
Bezdek, “Social Benefits of Carbon”, 2014



# All forms of energy have impacts

Source: The Commentator

A 'transmission line' for much of the world



Source: Frank Clemente



Humanity needs  
cheap, abundant, & reliable  
energy!

Source: Globe & Mail



Margie & Alvin  
Tso, Navajo  
Nation

Electricity in  
their home on  
April 7<sup>th</sup>, 2014

15,000 homes  
on reservation  
do not have  
electricity

Source: AP



## TAKE AWAYS

COAL is:

- The backbone of our reliable electric system
- Affordable, stably-priced electricity for American families and businesses
- 800,000 direct & indirect jobs

Message to policymakers and regulators:

- Retain & update our existing coal fleet
- RD&D – new technologies & build new plants



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