Global Energy Demand

Figure 2. World energy consumption by fuel type, 1990-2040
From Scarcity to Abundance
U.S. Energy Demand Increases 9% through 2040
Energy Security Rapidly Increasing

Source: Energy Information Administration
Energy Independence Soon to be Reality

- U.S. net oil imports are now at their lowest level since 2005
- Net imports represent just 27 percent of U.S. petroleum demand—the lowest share since the mid-1980s.
2016 is projected to be the first year where natural gas is the leading source of electricity generation.
Oil Exports on the Rise

Monthly U.S. exports of crude oil (Jan 2010 - May 2016)
thousand barrels per day

Source: U.S. Energy Information Administration, Petroleum Supply Monthly

Dec 2015: Crude oil export restrictions lifted

exports to all other countries

exports to Canada
LNG Exports

- November 2016: U.S. becomes net exporter of natural gas for first time in 60 years
- By 2040, LNG exports will exceed 6.7 trillion tcf
Energy is 1/3 of all US investment
The Regulatory Landscape
Regulation Nation

97,642 pages of federal regulations in 2016

2,966 pages of new laws

Source: Senator Mike Lee (R-UT)
As of November 2016, the Obama EPA had promulgated a record 57 FIPs!
Recently Finalized and Upcoming Regulations Impacting Energy:

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CPP: Unprecedented Legal Opposition

Chamber et al lawsuit includes:

- National Association of Manufacturers
- American Fuel and Petrochemical Manufacturers
- National Federation of Independent Business
- American Chemistry Council
- American Coke and Coal Chemicals Institute
- American Foundry Society
- American Forest and Paper Association
- American Iron and Steel Institute
- American Wood Council
- Brick Industry Association
- Electricity Consumers Resource Council
- Lignite Energy Council
- National Lime Association
- National Oilseed Processors Association
- Portland Cement Association.
2015 U.S. Average Electricity Retail Prices
(cents per kilowatt hour)

INSTITUTE FOR 21ST CENTURY ENERGY
U.S. CHAMBER OF COMMERCE

National Average = 10.42
Clean Power Plan – Looking Ahead

- President Trump campaigned on repeal
- Four potential paths:
  - Courts (DC Circuit/SCOTUS)
  - Formal executive withdrawal/rescission
  - Light enforcement/interpretation
  - Congressional repeal
- Regardless of path, CPP planning is likely to end immediately.
EPA’s “Waters of the U.S.” proposed rule would define “navigable waters” to regulate countless ephemeral drains, ditches and “wetlands” that only contain water when it rains. But whether they are wet or dry on any given day, farming, home building, business expansions, commercial development, and countless other land uses in or near these land features will require a federal permit. Permits might take years, or might never be issued. The result amounts to nothing short of federal zoning authority.

This is not what Congress had in mind when it wrote the Clean Water Act. To learn more and help defeat this rule, visit ditchtherule.fb.org.

Source: Farm Bureau
Trump Considerations

- Personnel is policy

- Energy/Environment Policy Outlook
  - Early emphasis: Executive Actions (rescind EOs, freeze new regs, enforcement discretion)
  - Congressional Review Act (CSAPR, Methane, Stream Protection Rule)
  - Energy likely to be key aspect of infrastructure, tax reform legislation
  - Comprehensive energy bill? Clean Air Act and Clean Water Act reforms?
  - Litigation strategy
Can Trump Help Coal Country?

CPP Repeal Projected to Hold Production Flat

**EIA Coal Production Outlook: No CPP vs. CPP (2017-2040)**

Source: Energy Information Administration
Since 2005, U.S. emissions have fallen by 13 percent while China’s have grown by 69 percent and India’s by 53 percent.

Globally there are 510 coal-fired power plant units under construction, with a further 1,874 planned, a total of 2,384 (including 765 in China).

India has announced that it plans to double coal production by 2020.

Russia has “committed” to increase emissions up to 40%

President-elect Trump has promised to “cancel” Paris. Mechanism/priority remains unclear
Coal-fired Power Plants Planned and Under Construction
Total installed capacity (megawatts)

China: 460,264
India: 360,935
Other Asia: 79,834

Total Global Proposed Capacity: 1,167,114

Source: Platts database, September 2015
Anti-Energy Environmentalism Evolves and Goes Mainstream
Economic Growth + Environmental Progress

- Gross Domestic Product: 234%
- Vehicle Miles Traveled: 168%
- Population: 44%
- Energy Consumption: 54%
- CO₂ Emissions: 24%
- Aggregate Emissions (Six Common Pollutants): -68%

Source: EPA
The New Environmentalism

- **1970s – 2000s:** pursue **safer** and **cleaner** fossil fuel use that is achievable at a reasonable cost.
- **Today:** Eliminate fossil fuels entirely.

- AEP/SWEPCO Turk Plant: 1st Ultra Supercritical plant in the country is now **illegal to build and operate** because of CO2 regulations.
Keep It In The Ground Goes Mainstream

2012

This country needs an all-out, all-of-the-above strategy that develops every available source of American energy.”

— President Obama, January 2012

2015

We need to keep fossil fuels in the ground, and move to 100 percent renewable energy - and we need to act immediately. #Bernie2016

2016

"By the time we get through all of my conditions, I do not think there will be many places in America where fracking will continue to take place."

— Hillary Clinton, March 2016
Keep It In The Ground Intensifies

- No Fracking
- No Power Plants
- No Pipelines
- No Exports
- No Mining
- No Fracking
- No Power Plants
- No Pipelines
- No Exports
- No Mining
New Battleground: Pipelines

2.5 million miles of natural gas pipelines

190,000 miles of oil pipelines
Energy Infrastructure Under Assault

Tracking Fossil Fuel Project Cancellations Across the U.S.

Since the Keystone XL pipeline was rejected by Pres. Obama on climate grounds in Nov. 2015, at least 28 other proposed fossil fuel infrastructure projects in the U.S. have been halted. The reasons are complex, but are mainly a combination of unfavorable economic conditions, environmental concerns and local resistance. In some cases, officials rejected the projects or permits or extended the review process, in others, the companies canceled or delayed their plans.
2003: Sierra Club announces “Beyond Coal” campaign

2010: “We do need natural gas as a bridge fuel—a temporary bridge fuel—to bring about a clean energy revolution” – Sierra Club Executive Director Michael Brune

2012: Sierra Club announced “Beyond Gas” campaign. “As we push to retire coal plants, we’re going to work to make sure we’re not simultaneously switching to natural gas infrastructure. And we’re going to be preventing new gas plants from being built wherever we can.” – Sierra Club Executive Director Michael Brune

“The Sierra Club opposes the licensing, construction and operation of new nuclear reactors utilizing the fission process, pending:

1) Development of adequate national and global policies to curb energy over-use and unnecessary economic growth (emphasis added).”

“The Sierra Club strongly opposes the construction of new large hydroelectric dams.”

Sources of U.S. electricity generation, 2014

- Nuclear 19%
- Natural gas 27%
- Coal 39%
- Renewable 13%

TAKE ACTION!

Join us and help secure America’s Energy Future

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