U.S. COAL INDUSTRY UPDATE

THE PATH FORWARD FOR COAL

Janet Gellici, National Coal Council U.S.-China Clean Coal Industry Forum

Morgantown, WV – November 30, 2017





Celebrating 33 years – 1984 | 2017

The National Coal Council provides advice and recommendations to the Secretary of Energy on general policy matters relating to coal and the coal industry.

NCC is a Federal Advisory Committee organized under Federal Advisory Committee Act (FACA) legislation

National Coal Council



Members

Appointed by Secretary of Energy to serve 2-year terms 125-150 members

Industry
 Coal Suppliers
 Utility & Industrial Consumers

Coal Transportation

- Support Services
 - Engineering Firms Technology Developers Consultants Attorneys

- Academics
- NGOs

Environmental Groups Trade Association Managers

• Government

Public Utility Commissioners State Energy Officials

National Coal Council



Reports

~ 35 reports prepared by NCC members at no cost to DOE Extensive Range of Report Topics:

Carbon Management Clean Coal Technologies Coal & Coal Technology Exports Coal Conversion Utility Deregulation Climate & Clean Air Regulations Enhancing Coal's Image Building New Coal Power Plants Industrial Coal Use CCUS for EOR Value of Existing Coal Fleet Advancing CCS Technologies Policy Parity for CCS CO₂ Utilization

Presentation Overview

- U.S. Coal Sector Current Status
- U.S. Administration Priorities
- The Path Forward: U.S. Industry Priorities



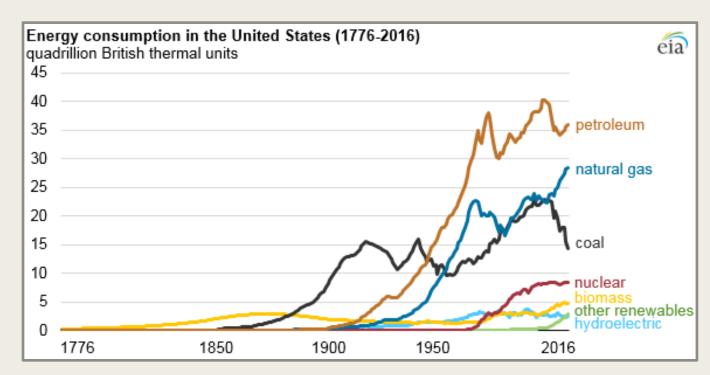
U.S. Coal Status - Overview



Multiple Disruptive Factors

- Market Demand
- Competitive Markets
- Technology

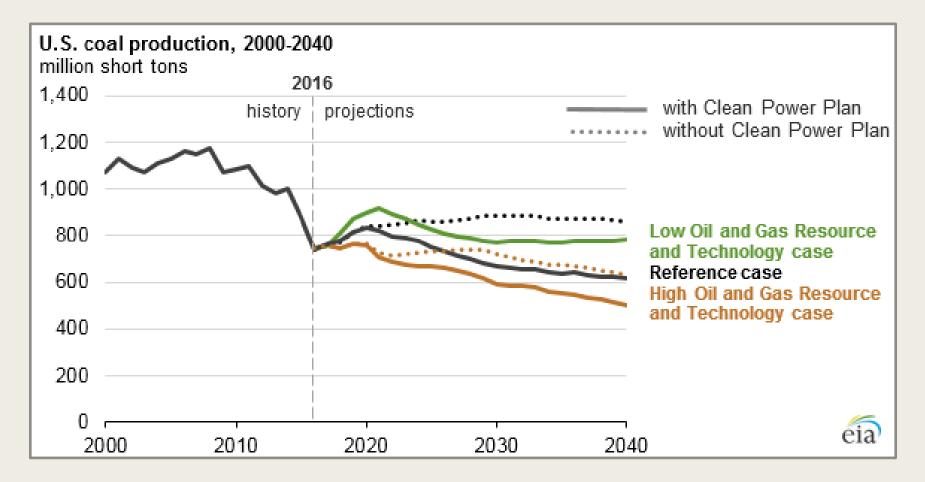
> Policy



Source: US EIA Monthly Energy Review

U.S. Coal Status - Policy

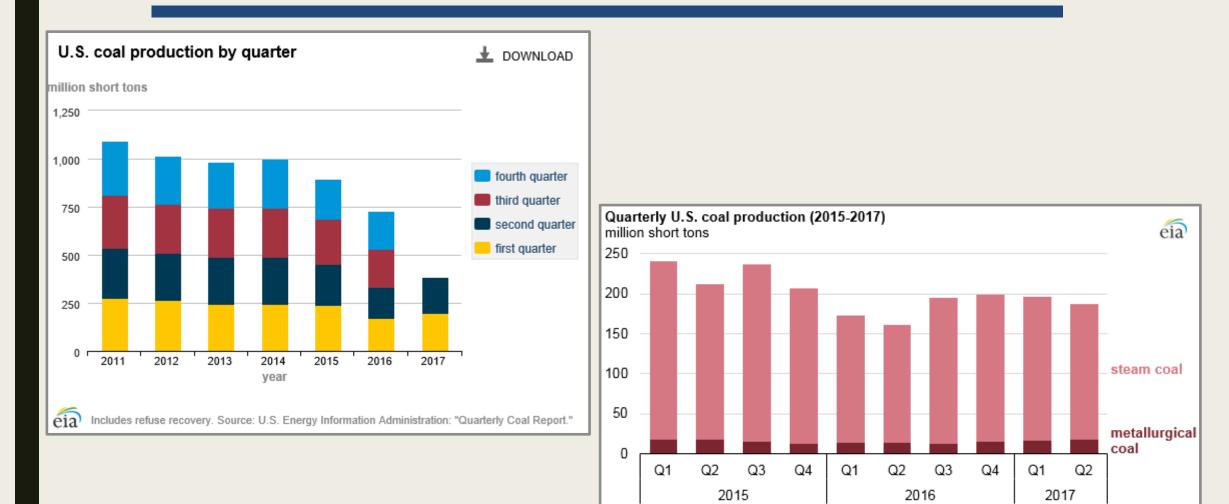




Source: EIA AEO 2017

U.S. Coal Status - Production

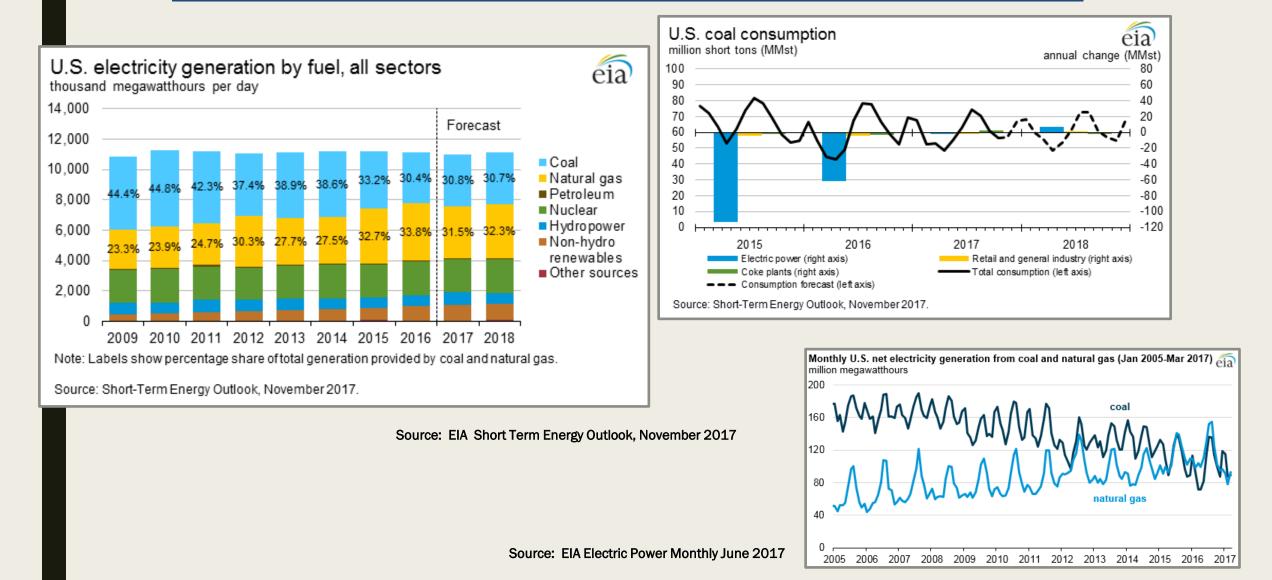




Source: EIA Quarterly Coal Report



U.S. Coal Status - Consumption



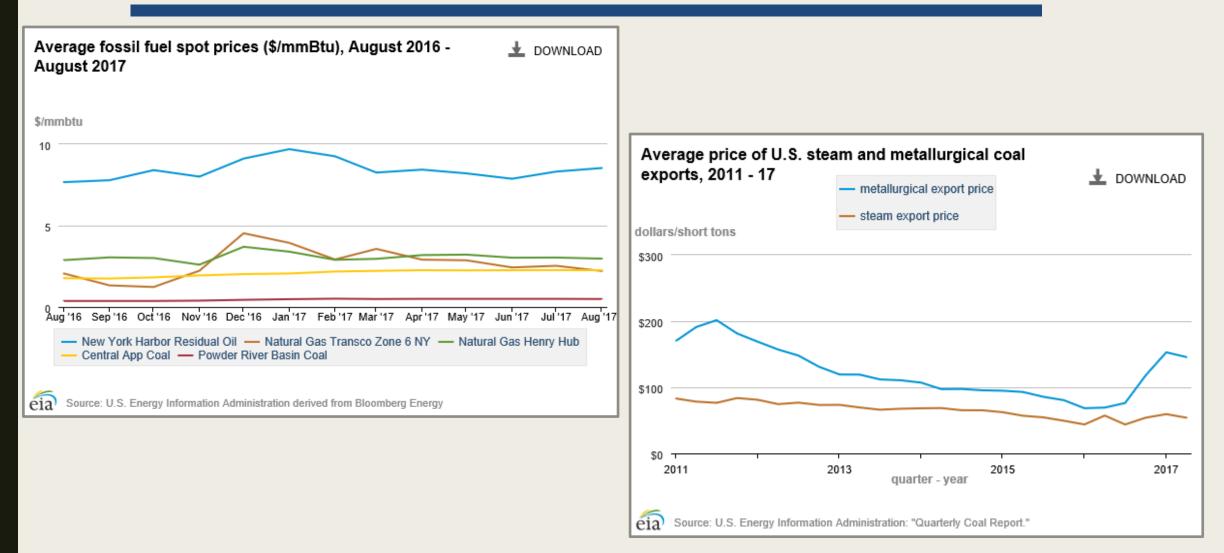
U.S. Coal Status - Exports



Source: EIA Quarterly Coal Report July 2017

U.S. Coal Status - Pricing





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Administration Priorities



- Pro Development
 - Economic/Job Growth
 - Infrastructure Development
- Pro Market
 - More Markets, Less Mandates
 - Regulatory Reform
- Pro America
 - Balance of Trade
 - Exports





Administration Energy Priorities

American Energy Dominance

- Energy Resource Development
- Regulatory Reform
- Exports

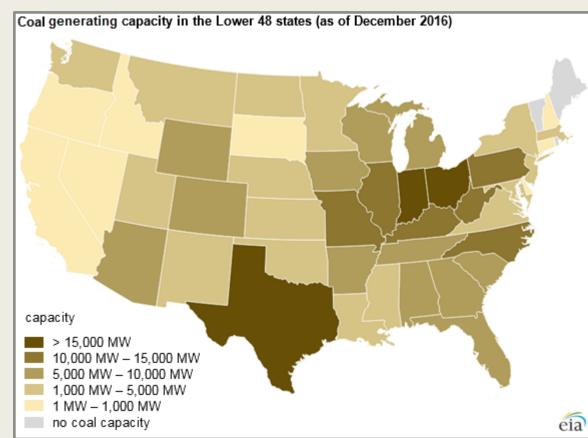
"... we're going to be an exporter
... We will be dominant.
We will export American energy all over the world." President Trump – June 29th, 2017



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Optimize Existing Coal Fleet







Reliable & Resilient The Value of Our Existing Coal Fleet

An Assessment of Measures to Improve Reliability & Efficiency While Reducing Emissions



Optimize Existing Coal Fleet

- Benefits of Coal Power Generation
 Macroeconomics, Supply & Price Stability
- Changes Impacting Future Benefits
 - New Source Review
 - Natural Gas Prices
 - Reduced Demand for Electricity
 - ✤ Age of Fleet
- Technology to Enhance Flexibility
- Technology to Improve Efficiency
- Technology to Reduce Emissions



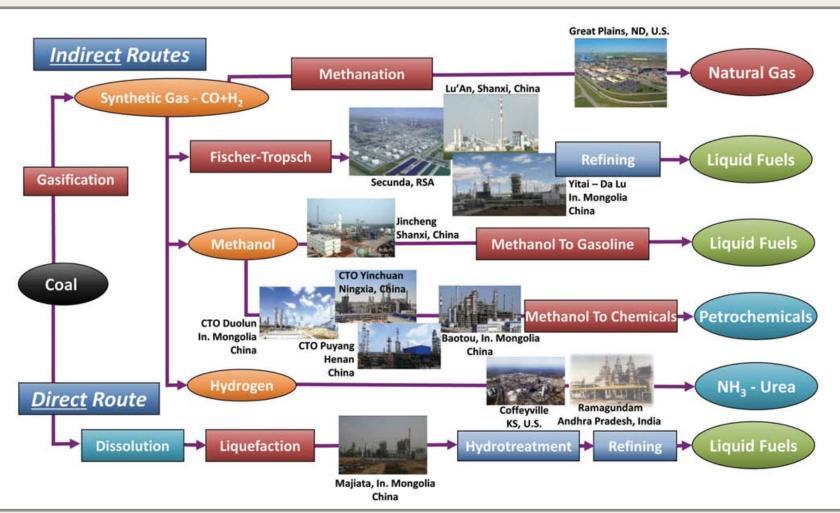


Advance New Markets for Coal

Benzene – nylon, dyes Xylene – inks, perfume, paints Light Oils – pharmaceuticals, photo chemicals Creosote Oil – aviation fuels, timber preserve Naphthalene Oil – plastics, moth balls Naphtha – linoleum, brake lining rubber Ammonia – soap, explosives Creosols – sheep dips

Advance New Markets for Coal





Source: Cornerstone Magazine









Bringing Scale and Speed to CCS Deployment

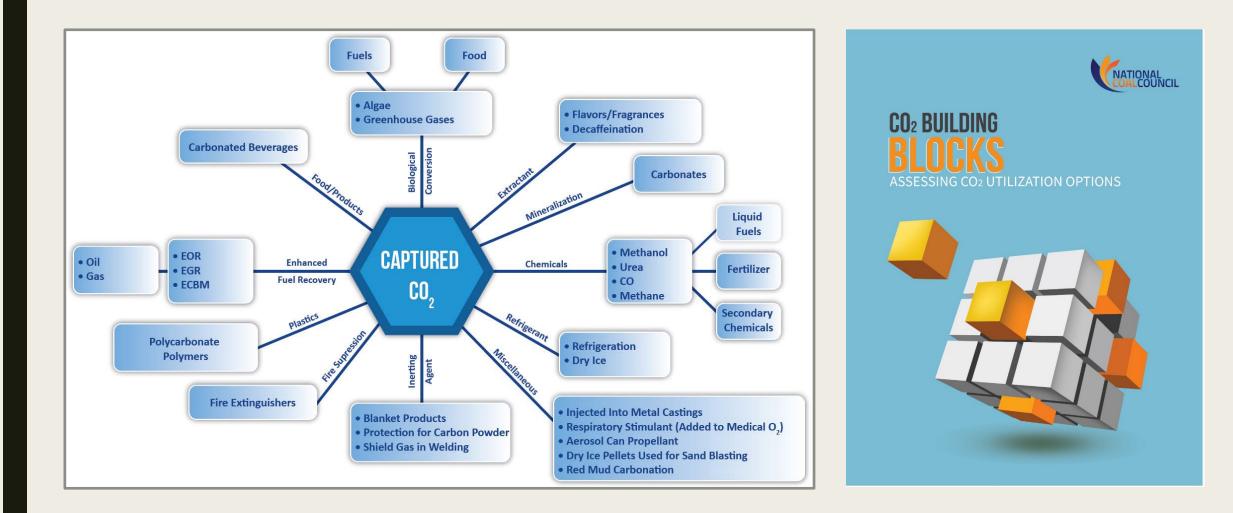


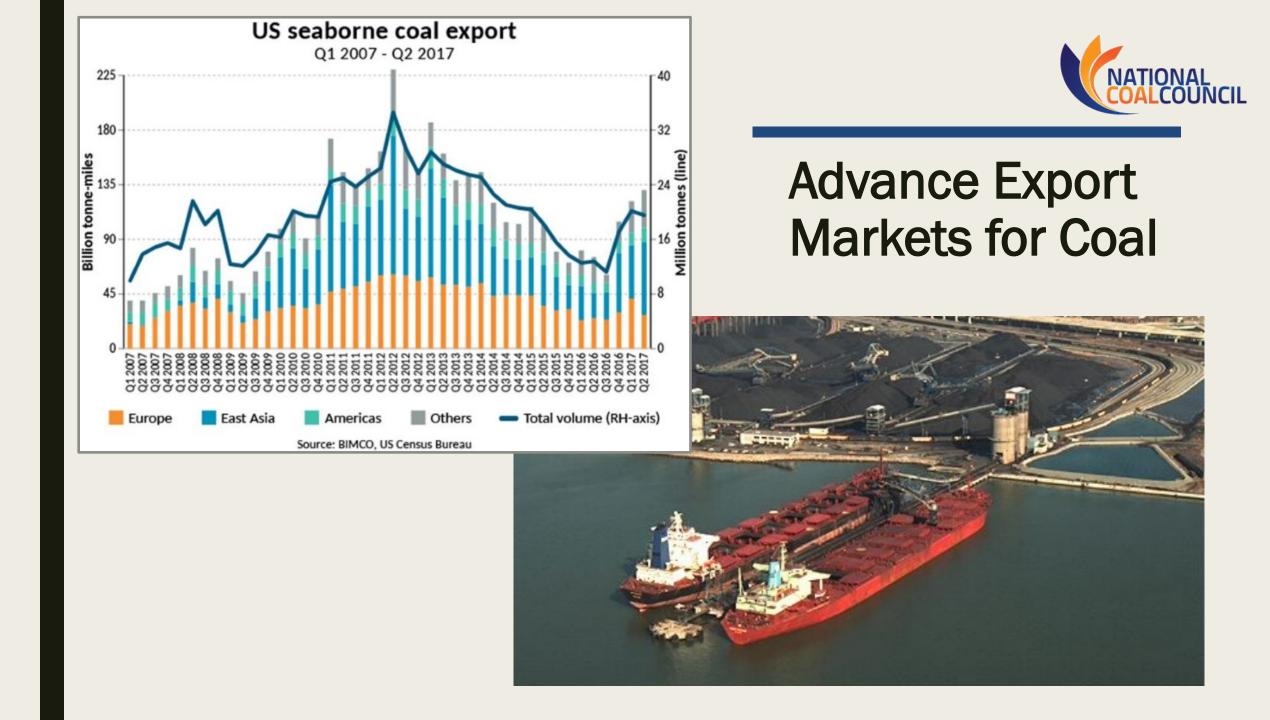


LEVELING
THE PLAYING
FIELDPolicy Parity
for Carbon Capture
and Storage
Technologies

NCC White Paper – November 2015







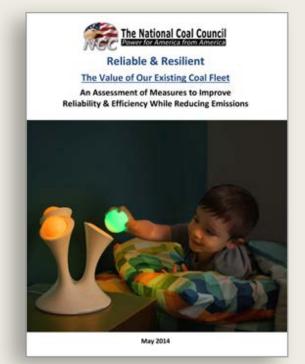


Advance Industrial Markets for Coal

- Infrastructure Development
- Economic Growth/Job Creation
- National Security







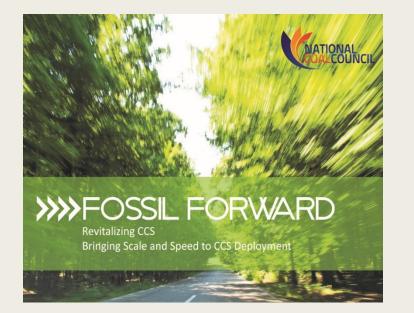


LEVELING THE PLAYING FIELD Policy Parity for Carbon Capture and Storage Technologies











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