NCC INITIATIVES ON CARBON MANAGEMENT

Janet Gellici, National Coal Council
15th Annual CO₂-EOR Carbon Management Workshop
Midland, TX – December 4, 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:

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NCC Carbon Management Initiatives

- Historical Efforts
- Recent Reports
- Future Initiatives
NCC Historical Efforts

NCC Studies on Carbon Management 2000-2016

- May 2000  Research & Development Needs for the Sequestration of Carbon Dioxide
- May 2003  Coal-Related Greenhouse Gas Management Issues
- March 2006  Coal: America’s Energy Future (Volumes I & II)
- June 2007  Technologies to Reduce or Capture & Store Carbon Dioxide Emissions
- May 2008  The Urgency of Sustainable Coal
- December 2009  Low Carbon Coal:
- March 2011  Expediting CCS Development: Challenges and Opportunities
- June 2012  Harnessing Coal’s Carbon Content to Advance the Economy, Environment & Energy Security (CO₂-EOR)
- May 2014  Reliable & Resilient: The Value of Our Existing Coal Fleet
- January 2015  Fossil Forward: Bringing Scale and Speed to CCS Deployment
- November 2015  Leveling the Playing Field: Policy Parity for CCUS Technologies
- August 2016  CO₂ Building Blocks: Assessing CO₂ Utilization Options
NCC Carbon Management Initiatives

- Historical Efforts
- Recent Reports
- Future Initiatives
The Business Case for CO₂-EOR

RECOMMENDATIONS

• Regulatory certainty is necessary for development of a robust CCUS/EOR industry.

• DOE-industry should undertake efforts to identify innovative financial support mechanisms for demonstration/early mover projects.

• State level regulations are needed to support concurrent use of CO₂ for EOR and storage of CO₂.

• DOE and industry collaboration is needed to incentivize development of a CO₂ pipeline network.

• DOE is uniquely situated to coordinate efforts to expedite CCUS deployment in candidate areas of the country.
Technology Improves Plant Efficiency

RECOMMENDATIONS

- Commit to coal as part of a fuel-diverse, all-of-the above energy strategy.

- Remove barriers to efficiency and capacity improvements for the existing coal power fleet.

- Prioritize and accelerate RD&D needs.

- Continued RD&D is vital.
Critical Need for Policy Parity

RECOMMENDATIONS

• To achieve CCUS deployment at commercial scale, policy parity for CCUS with other low carbon technologies is required.

• Technology and funding incentives must be better coordinated to be effective.

• DOE program goals need far greater clarity and alignment with commercial technology and financing approaches used by industry.

• Funding for CCUS RD&D is limited and must be enhanced and focused.

• Control of GHG emissions is an international issue in need of international initiatives.
RECOMMENDATIONS

• A menu of financial incentives are needed to provide support for CCUS deployment on a level playing field with other low carbon technology options.

• Regulatory improvements are needed to remove barriers to development of CCUS projects.
  - Injection Barriers
  - New Source Review
  - Infrastructure Siting/Permitting
  - Storage Siting/Permitting
CO₂-EOR Best Option for CO₂ Use

**RECOMMENDATIONS**

- Build on the expanding consensus among industry, the environmental community and governments that future CO₂ reduction goals cannot be met by renewable energy sources alone.

- Prioritize CO₂ utilization technology deployment, with the highest priority given to geologic CO₂ utilization options, such as CO₂ for EOR.

- Pursue non-geologic CO₂ markets as longer term opportunities.

- U.S. and international GHG reduction objectives and timeframes dictate the need to employ CO₂ utilization technologies that can be quickly commercialized at significant scale.
NCC Carbon Management Initiatives

- Historical Efforts
- Recent Reports
- Future Initiatives
Optimize Existing Coal Fleet
RDD&D - Advanced Coal Technologies
NCC-NPC Effort on CCUS

Secretary Perry – September 21, 2017 – Letter to NPC Leadership

• “I request that the National Petroleum Council undertake a study to define potential pathways, including research and development, regulatory, and policy options, for integrating CCUS at scale into the energy and industrial marketplace, with specific emphasis on the petroleum industry.”

• “The study ... should draw on available analyses from a breadth of sources. The National Coal Council (NCC) has issued several important reports that could inform this effort ... The Department encourages collaboration and information sharing between NPC and NCC.”