The Multi-State CO$_2$-EOR Working Group

NASEO Clean Coal/CCUS Workshop

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Overview

• History
• Goals and Objectives
• Participants
• Policy Papers
• Future Initiatives
History

- Western Governors’ Association: Policy Resolution 2015-06 – Enhanced Oil Recovery
- Southern States Energy Board Resolution
- Resolutions Generated Broad Interest
- Governors Mead and Bullock Launched Work Group in September 2015
- Staffed and Facilitated by Great Plains Institute
Goals and Objectives

• Help policy makers better understand potential for carbon capture and CO$_2$-EOR
• Recommend strategies and policies to states and federal government that promotes project deployment
• Support policy makers in implementing recommendations
• Encourage enactment of federal policies that complement state priorities
• Support efforts to deploy projects – “Turn Dirt and Get Projects on the Ground”
Participants

- Representatives from 15 states (growing)
- Bipartisan
- Industry
- NGOs
- Finance
- CO$_2$-EOR Experts
Puzzle Pieces

**Federal Recommendations**
- Extend, expand and reform the Section 45Q tax credit
- Establish federal contracts for differences to help stabilize CO₂ prices
- Make carbon capture eligible for tax exempt private activity bonds

**State Recommendations**
- Optimize existing state taxes to support carbon capture and CO₂-EOR project deployment
Pipeline Networks

Recommendations

• Make CO₂ pipelines a component of the broader national infrastructure agenda
• Leverage private capital with federal financing to develop large volume, long distance CO₂ trunk pipeline infrastructure
• Support CO₂ pipeline corridor planning and streamlined permitting processes
Pipeline Financing

- Provides a menu of potential federal financing options to support buildout of pipeline infrastructure
- Illustrated options for privately owned, publicly owned, and 50/50 private/public owned pipeline infrastructure
- Work Group submitted this work in letters to U.S. Senate and House leadership, and the U.S. President
- Available at: [http://www.betterenergy.org/blog/co2-eor-workgroup-outlines-federal-financing-options-co2-pipeline-infrastructure/](http://www.betterenergy.org/blog/co2-eor-workgroup-outlines-federal-financing-options-co2-pipeline-infrastructure/)
Electricity Markets

- Carbon capture equipped power plants face challenges to commercial viability
- Electricity markets require dispatch of cheapest available power first
- Carbon reduction benefits are neither valued in the market, nor addressed by public policy
- Multiple regulatory entities and mechanisms compound the challenges
- Made policy recommendations that could benefit power plants with carbon capture in order to capitalize on their affordable and reliable power, while accounting for environmental stewardship
Utilizing CO\textsubscript{2} from Ethanol

- Ethanol industry provides low hanging fruit for carbon capture
- Production process generates relatively pure and easily captured CO\textsubscript{2} that can be used for EOR and/or saline storage
- 45Q tax credit helps bridge the cost gap
- Appropriately implemented low carbon fuel policies can help bridge cost gap
- Pipeline infrastructure is the limiting factor
- Modeled 2 cost scenarios for pipeline project development and made policy recommendations to promote utilization of this resource
Regional Carbon Capture Initiative

• Initiative will look at opportunities to directly facilitate deployment of carbon capture, utilization and storage projects
• Will take a regional approach, due to resource constraints, then expand over time
• Solid understanding of sources and sinks of CO₂ and general locations of pipeline infrastructure
• Will look at potential corridors to link those CO₂ resources
• Will provide financial analysis to look at potential early movers
• Will make policy recommendations to support deployment of projects, based on results of our analyses
Conclusions

• Work Group involves collaboration from diverse stakeholders
• Published materials are well informed and have provided valuable and effective material to policy makers
• We are all interested in promoting the deployment of projects
• We will happily accept additional active members to the Work Group
• Work Group papers are available at http://www.betterenergy.org/
Questions?