

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

THIS MEMORANDUM OF UNDERSTANDING (Memorandum), made on this 1st day of October, 2020, by and between the States of Kansas, Louisiana, Maryland, Montana, Pennsylvania, Oklahoma and Wyoming (hereinafter referred to as the Signatory States), expresses a commitment to establish and implement a Regional CO₂ Transport Infrastructure Action Plan.

WHEREAS, The Signatory States recognize that development of regional and national CO₂ transport networks, together with proposed tax credits and other financial incentives for carbon capture from industrial facilities and power plants and from ambient air through direct air capture, can support long-term production and use of America's abundant and affordable natural resources, and create and preserve high-paying jobs in energy-producing, agricultural, and industrial states of the country, all while significantly reducing net carbon emissions.

WHEREAS, Electricity generated from coal, natural gas, biomass, and numerous industrial activities, including natural gas processing; production of ethanol, sustainable aviation fuel, renewable diesel fertilizer, hydrogen and certain chemicals; refining; and manufacture of cement and steel, all emit CO₂, and in some cases its precursor carbon monoxide (CO), that can be captured for permanent geologic storage and for transformation into beneficial products that create economic value and reduce emissions, such as low-carbon fuels, chemicals, advanced materials and building products; and

WHEREAS, Carbon capture technologies provide the means to reduce emissions from existing energy and industrial production, power generation, and manufacturing, while sustaining high-wage jobs and tax revenues from those sectors, as well as creating new jobs in emerging industries such as carbon utilization and carbon negative technologies; and

WHEREAS, Modeling by the International Energy Agency and the Intergovernmental Panel on Climate Change demonstrates that carbon capture is essential to meeting midcentury emissions reduction goals, and to achieving those goals at lowest cost; and

WHEREAS, CO₂ transportation infrastructure is the foundation for carbon capture investment and innovation by enabling transport of CO₂ from sources to locations it can be geologically stored or beneficially used, by enabling economies of scale to be achieved through aggregation of CO₂ from multiple sources, and by enabling an interconnected market for CO₂; and

WHEREAS, There currently exists approximately 5,200 miles of CO₂ pipelines in eleven U.S. states, which were developed over the past forty years and have operated safely and reliably, and which enable the transport of CO₂ within those limited regions; and

WHEREAS, Today's existing long-distance, large-volume CO₂ transport infrastructure must be significantly expanded if carbon capture is to achieve its full potential for reducing emissions and supporting domestic energy and industrial production and job creation; and

WHEREAS, In February 2018, Congress passed legislation to reform and expand the federal Section 45Q tax credit to incentivize the deployment of carbon capture and utilization projects; and

WHEREAS, Further progress can be made with passage of additional federal legislation and supporting funding for state programs to facilitate the development of complementary policies at the state level that provide investment certainty and financial feasibility for projects; and

WHEREAS, There are a number of bills in Congress that have been introduced to complement recent 45Q tax credit changes, including legislation to provide low-cost federal financing of CO₂ pipeline infrastructure, which demonstrate increasing bipartisan support for carbon capture; and

WHEREAS, It is beneficial for Congress and the Administration to act in close partnership with State governments to recognize the opportunities to reduce carbon emissions, utilize CO₂ to enhance recovery of oil and gas, and to transform captured carbon into a useful commodity for making items of economic value; and

WHEREAS, Development of carbon hubs, or clusters, of industrial facilities and power plants that share common CO₂ transport infrastructure to enable large-scale capture, storage, and beneficial use of captured carbon will require legislative assistance from both states and the federal government in a number of areas, including but not limited to, low-interest federal loans, support to fund extra pipeline capacity and realize economies of scale; federally- and state-supported long-distance CO₂ trunk lines; and designation of anthropogenic CO₂ pipelines as "pollution control devices" to enable state and local tax abatement; and

WHEREAS, Regional collaboration among states, in consultation with federal agencies, tribal governments, and industry, NGO, labor, and other stakeholders, will be key to developing regional, and ultimately national, CO₂ transport infrastructure networks;

THEREFORE, it is the mutual intention of the Signatory States to develop a regional CO₂ transport infrastructure action plan.

Purpose and Vision

The purpose of this Memorandum is to establish a collaborative mechanism to develop and implement an action plan for the buildout of regional CO₂ transport infrastructure to

enable large-scale carbon management. The vision of this Memorandum is to accelerate, through state leadership and coordination, the deployment of regional CO₂ transport infrastructure networks and the development of carbon hubs in which industries take advantage of economies of scale through common transport and geologic storage infrastructure. To achieve this vision, this Memorandum establishes a platform for Signatory States to collaborate and leverage resources across the region.

Activities

The Signatory States intend to undertake the following actions under this Memorandum:

1. Inform policymakers, stakeholders, and the public to raise awareness of carbon capture and related opportunities associated with development of regional CO₂ transport infrastructure;
2. Develop and publish an initial regional CO₂ transport infrastructure action plan within one year of the signing of this Memorandum;
3. Identify and develop state and regional policy recommendations related to CO₂ transport infrastructure deployment to implement that plan;
4. Engage stakeholders to solicit input on policy recommendations;
5. Support efforts in Congress to incorporate CO₂ pipeline infrastructure into national infrastructure legislation, including measures for federal financing of extra capacity;
6. Support the expeditious build-out of CO₂ transport infrastructure as identified in the vision and purpose of this Memorandum, through a range of potential strategies identified in the plan, including state financial incentives and investments, public-private partnerships with companies, partnerships with local and federal governments, the identification of funding sources that can support dedicated state resources, or other mechanisms, as appropriate, for the individual states.

Process

1. The Signatory States will maintain a Coordination Group composed of senior leadership from each state.
2. The Coordination Group will meet at least quarterly and team members will provide regular updates and input. Additional Working Groups may be formed to address specific challenges and opportunities, as needed.
3. The Coordination Group will continue to identify barriers to the development of CO₂ transport infrastructure and develop strategies and recommendations to remove these barriers.
4. The Coordination Group will complete an annual Progress Report summarizing progress and deliver the Progress Report to each state's Governor.

5. The Signatory States will ensure that the Coordination Group has the capacity and resources necessary to carry out the above actions.

NOW THEREFORE, as the Signatory States, we express our mutual understanding and cooperative relationship as follows:

1. **OVERALL COMMITMENT** The Signatory States agree to coordinate actions, and support the successful development and implementation of a regional CO₂ transport infrastructure plan within their respective state and connected between the states, by undertaking the actions outlined herein.

2. **INTER-AGENCY COORDINATION WITHIN STATES** Where appropriate, the Signatory States will cooperate with their respective state agencies and departments to facilitate the development and implementation of a regional CO₂ transport infrastructure plan.

3. **PUBLIC-PRIVATE PARTNERSHIPS** Where appropriate, the Signatory States will partner and cooperate with federal agencies, tribal governments, and carbon capture stakeholders including energy, industrial, and technology companies, labor unions, environmental and energy policy organizations, and financial institutions to encourage CO₂ transport infrastructure deployment and to inform the development and implementation of a regional CO₂ transport infrastructure plan.

4. **SUPPLEMENTARY PROVISIONS**

a. A Signatory State may terminate its participation in this Memorandum at any time and at its sole discretion through a written statement submitted to the other Signatory States.

b. This Memorandum may be amended through the collective agreement of the authorized representatives of the Signatory States.

[Signatures on following pages]

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

State Signature Page

Signature:



Title & Organization: Director, Kansas Geological Survey

State: Kansas

Date: May 12, 2020

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

State Signature Page

Signature:



Title & Organization:

Secretary, LONR

State:

Louisiana

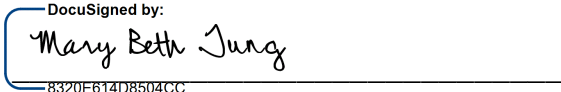
Date:

5/15/2020

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

State Signature Page

Signature: 8320E614D8504CC...

Title & Organization: Director, Maryland Energy Administration

State: Maryland

Date: 7/22/2020

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

State Signature Page

Signature:



Title & Organization:

Governor

State:

Montana

Date:

11 June 2020

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State Signature Page

Signature:



Title & Organization:

Secretary of Energy & Environment

State:

Oklahoma

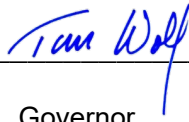
Date:

May 26, 2020

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

State Signature Page

Signature: 

Title & Organization: Governor

State: Pennsylvania

Date: July 17, 2020

Memorandum of Understanding

Regional Carbon Dioxide (CO₂) Transport Infrastructure Action Plan

State Signature Page

Signature: 

Title & Organization: Executive Director - Enhanced Oil Recovery Institute – U of WY

State: Wyoming

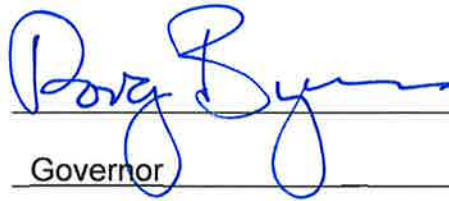
Date: 07 May 2020

Memorandum of Understanding

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State Signature Page

Signature:



Title & Organization:

Governor

State:

North Dakota

Date:

4/14/2021
