

# North Dakota Industrial Commission



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June 26, 2024

**Re: In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard Under Minn. Stat. 216B.1691, Docket No. E999/CI-23-151**

## **Comments of the North Dakota Industrial Commission on behalf of the State of North Dakota**

Dear Mr. Seuffert,

Pursuant to the Minnesota Public Utilities Commission's (MPUC) November 8, 2023 Notice of Comment Period ("Notice"), the North Dakota Industrial Commission (NDIC)<sup>1</sup> submits these comments regarding topics 1 and 2 in the Notice.

NDIC, on behalf of North Dakota, continues to hold significant and legitimate concerns in relation to the enactment and implementation of Minn. Stat. §216B.1691. Due to its extraterritorial application, the statute remains constitutionally suspect.

Notwithstanding, for the reasons stated in these comments, NDIC recommends MPUC explicitly recognize that the definition of "carbon free" within Minn. Stat. §216B.1691 includes Carbon Capture, Utilization and Storage technology (CCUS) and that MPUC develop and promulgate pragmatic and workable regulatory rules that properly recognize the use of CCUS as a means of partially or fully complying with the statute's requirements.

### **I. Introduction**

North Dakota is now and has traditionally been a major and responsible energy producing State. North Dakota ranks 7<sup>th</sup> nationally in total energy production, while ranking 40<sup>th</sup> nationally in

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<sup>1</sup> NDIC consists of the Governor, Attorney General, and Agriculture Commissioner of North Dakota. The North Dakota Legislature created NDIC in 1919 to conduct and manage, on behalf of the State, certain utilities, industries, enterprises and business projects established by State law. The current members of NDIC are Governor Doug Burgum, Attorney General Drew Wrigley, and Agriculture Commissioner Doug Goehring.

energy consumption, thus making it a significant contributor to the reliable low cost energy that Minnesota and other states in the region have enjoyed for decades.

North Dakota exports a significant proportion of the energy it produces, with exported power exceeding well over 20,000 gigawatt hours in 2022. Much of this power is exported into the Midcontinent Independent System Operator (MISO).<sup>2</sup> North Dakota's contributions to the regional electric grid have allowed Minnesota to consistently enjoy some of the lowest average electricity rates throughout the country. Specifically, North Dakota has an electricity production nameplate capacity of approximately 9.5 gigawatts<sup>3</sup>, compared to MISO's current forecasted peak demand of 96.5 gigawatts<sup>4</sup>.

North Dakota has traditionally enjoyed an abundance of energy producing resources, including lignite coal, oil, natural gas, hydro, and wind. The North Dakota lignite industry produces approximately thirty million tons of lignite annually, generates electricity for more than two million people in the northern great plains region, and consistently makes sizeable contributions toward meeting our nation's ongoing energy requirements. N.D.C.C. § 54-17.5-01

North Dakota has a significant and valid state interest and a sovereign obligation to ensure its energy resources are responsibly developed and duly used to the benefit of its citizens. Thus, North Dakota has properly determined "that it is an essential government function and public purpose to assist with the development and wise use of North Dakota's vast lignite resources." *Id.*

As part of its sovereign energy policy over the last 20 years, North Dakota has consistently supported the development of CCUS technology. NDIC recognizes that markets are demanding clean energy, and North Dakota is positioning itself on the cutting edge of providing that energy. North Dakota continually strives to foster an environment supportive of innovation and which provides regulatory certainty for utilities and companies seeking to develop clean energy within North Dakota's borders. North Dakota has long recognized the benefits of CCUS, and North Dakota has a keen interest in the large scale job creation potential arising from CCUS.

As we respectfully detailed in our attached previous letter in January 2023, NDIC has significant and legitimate concerns that—like certain provisions of the Next Generation Energy Act, §216H.01 *et seq.* previously found unconstitutional in *North Dakota v. Heydinger*, 15 F. Supp. 3d 891 (D. Minn. 2014), *aff'd* 825 F.3d 912 (8th Cir. 2016)—the Carbon Free Standard (CFS) added to Minn. Stat. §216B.1691 through Minnesota Session Laws, 2023, Regular Session Chapter 7, represents yet another improper attempt by Minnesota to export its wholly internal energy policy decisions to its neighboring states in patent violation of those states' own rights and sovereignty.

Although Minnesota may in certain limited circumstances lawfully regulate the manner in which energy is generated solely within its own borders, it has no legitimate state interest in the regulation of energy generation that occurs outside its borders. Yet CFS extraterritorially does exactly that.

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<sup>2</sup> MISO is the largest regional transmission organization in the United States, spanning all or part of the following 15 U.S. states and one Canadian province: Montana, North Dakota, South Dakota, Minnesota, Iowa, Wisconsin, Michigan, Indiana, Illinois, Missouri, Kentucky, Arkansas, Mississippi, Louisiana, and Texas, as well as the Canadian province of Manitoba.

<sup>3</sup> Spotlight on North Dakota Energy, 2022 Annual Report.

<sup>4</sup> MISO Current Snapshot, January 2024.

North Dakota does not regulate within the borders of Minnesota. Minnesota likewise should not attempt to regulate within the borders of North Dakota. Put more simply, North Dakota determines how and what safe and clean energy is generated within North Dakota, not Minnesota.

Moreover, as a practical matter, Minnesota is not now and can never be an “island” within our region’s massive shared electrical grid. Instead, Minnesota is but one participant of many in a regionwide transmission system tasked with delivering reliable and low-cost electricity to numerous individuals and entities irrespective of state borders. One MISO participant may not dictate its own purely domestic policies and internal parochial regulatory requirements upon the fifteen other sovereign MISO participants.

Recognizing these factual realities, NDIC remains greatly concerned that Minnesota once again is imposing local legislation that, among other transgressions, deigns to impermissibly:

- (1) Burden interstate commerce in violation of the dormant Commerce Clause;
- (2) Regulate wholesale sales of electricity and is therefore preempted by the Federal Power Act; and
- (3) Regulate carbon dioxide emissions from power plants and is therefore preempted by the Clean Air Act.

Along with again highlighting and presenting these highly significant and material pending constitutional concerns,<sup>5</sup> NDIC also directly responds to the Notice on behalf of North Dakota and accordingly provides these comments.

Specific to these comments, CCUS technology must be recognized as “carbon-free energy technology” under Minn. Stat. §216B.1691, subd. 2g, at a minimum, to the extent of the measurable percentage of carbon dioxide that has been captured in connection with the generation of the electricity.

## II. CCUS Overview

CCUS involves the capture of CO<sub>2</sub> emissions from industrial sources, transport of the captured CO<sub>2</sub> via pipeline to an injection well location, and injection of the CO<sub>2</sub> deep underground into suitable geologic formations for permanent storage.

For electric generators, CCUS technology diverts the flue gases to scrubbers after combustion. The scrubber cools the flue gas and removes impurities. The flue gas then flows into the bottom of a large absorber unit where CO<sub>2</sub> capture begins. As the flue gas rises through the absorber, it is contacted by an amine based liquid solvent that chemically bonds with the CO<sub>2</sub> and removes it

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<sup>5</sup> In submitting these administrative comments *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard Under Minn. Stat. 216B.1691, Docket No. E999/CI-23-151*, North Dakota expressly does not, in any way, waive any constitutional, statutory, federal preemption, administrative, regulatory, or other issues or claims pending in, or in the future that may be brought before, any court, commission, board, or other judicial, administrative, regulatory, political, or other body or entity in any federal, State, or other jurisdiction.

from the flue gas. This solution is then pumped to a regeneration unit where heat is used to break the CO<sub>2</sub> bonds and release pure CO<sub>2</sub>.

The remaining liquid solvent from which the CO<sub>2</sub> has been released is routed back to the absorber for reuse, while the purified CO<sub>2</sub> is sent to a compressor and transported via pipeline to an injection well next to the powerplant. The CO<sub>2</sub> is then safely injected thousands of feet below the ground where it spreads out into highly porous and permeable rock layers. Over time, the CO<sub>2</sub> dissolves and mineralizes onto the rock grains as carbonate. The injection and storage sites are continuously monitored to ensure the CO<sub>2</sub> remains in place.<sup>6</sup>

In 2013, the United States Geologic survey released the first-ever comprehensive, nation-wide assessment of geologic carbon sequestration, which estimates a mean storage potential of 3,000 metric gigatons of carbon dioxide.<sup>7</sup> Approximately 252 billion tons of that storage potential resides in the Williston Basin within North Dakota.

### **III. North Dakota's Contributions to CCUS**

North Dakota continues to lead in CCUS technology innovation, particularly for lignite-fueled power plants. North Dakota, through its Legislature, NDIC, Energy & Environmental Research Center (EERC), Plains CO<sub>2</sub> Reduction Partnership (“PCOR”), Clean Sustainable Energy Authority (CSEA) and industries, has notably established and implemented numerous effective and ground-breaking carbon capture policies and has dedicated substantial resources to advance the continued development of CCUS.

#### **A. North Dakota's Legislative Actions**

North Dakota's Legislature has appropriated hundreds of millions of dollars to promote the safe and efficient development of CCUS through multiple State programs and funds. For example, in 2009 the Legislature created the carbon dioxide storage facility trust fund under N.D.C.C. § 38-22-15. The purpose of the fund is to defray expenses related to the long-term monitoring and liability of injected CO<sub>2</sub>. The State of North Dakota takes title to injected CO<sub>2</sub> after a rigorous post-closure certification process and is responsible for ensuring permanent sequestration.

Additionally, in 2011, the Legislature appropriated \$532,000 to the CO<sub>2</sub> Storage Facility Administrative Fund. This fund, created under N.D.C.C. § 38-22-05, receives the fees associated with CCUS permitting and may use the money for “expenses in processing permit applications;

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<sup>6</sup> For a short animated video description of CCUS, see the Minnkota website at <https://www.projecttundrand.com/capture>. Accessed Jun. 21, 2024. The project is being developed by Minnkota Power Cooperative, TC Energy, Mitsubishi Heavy Industries and Kiewit. It is designed to capture up to 4 million metric tons of CO<sub>2</sub> annually from the Milton R. Young Station power generation facility near Center, ND. It was selected as one of three projects in the nation to receive funding from the U.S. Department of Energy to demonstrate technologies designed to capture, transport, and store carbon emissions. See <https://www.energy.gov/oced/articles/oced-selects-three-projects-ca-nd-and-tx-reduce-harmful-carbon-pollution-create-new>. Accessed Jun. 21, 2024. This project was awarded up to \$350 million of the total \$890 million in funding.

<sup>7</sup> U.S. Geological Survey Geologic Carbon Dioxide Storage Resources Assessment Team, 2013, National assessment of geologic carbon dioxide storage resources—Results (ver. 1.1, September 2013): U.S. Geological Survey Circular 1386, 41 p., <https://pubs.usgs.gov/circ/1386/>. (Supersedes ver. 1.0 released June 26, 2013.). Accessed Jun. 21, 2024.

regulating storage facilities during their construction, operational, and pre-closure phases; and making storage amount determinations under section 38-22-23.”

In 2019, the Legislature enacted House Bill 1439, which exempted CO<sub>2</sub> used for geologic storage from property taxes and sales and use taxes and incentivized the use of anthropogenic carbon dioxide for enhanced oil recovery under N.D.C.C. Ch. 38-08. This law also authorizes a fee structure for captured CO<sub>2</sub> injections, with an exemption for projects that produce CO<sub>2</sub> from coal and are located outside of the Bakken and Three Forks formations.

To support and incentivize industry’s continued development and adoption of CCUS, North Dakota offers a reduction in the coal conversion tax dependent on the amount of CO<sub>2</sub> that is captured. For example, energy facilities that capture 20% of their CO<sub>2</sub> emissions are eligible for a 20% reduction of the State general fund share based on gross receipts. This reduction can reach up to 50% for facilities that capture 80% or more of their carbon emissions.

In 2021, the Legislature authorized the creation of CSEA in House Bill 1452. The Legislature also updated utility rates to allow recovery for CCUS costs in Senate Bill 2206 and updated N.D.C.C. Ch. 38-22 to include "secure geological storage" to conform with federal updates to the Internal Revenue Code, 45Q on tax credits.

Most recently, in 2023, the Legislature created a Carbon Capture Education Program under NDIC in House Bill 1014 to contract for carbon capture and utilization education and marketing in consultation with three contributions of \$100,000 from the Lignite Research Council, the Oil and Gas Research Council, and the Renewable Energy Council. The Legislature also rejected eleven bills that attempted to limit the ability for the State to regulate and provide economic certainty to carbon capture projects – making clear the Legislature's intent to support policies that promote the State's burgeoning carbon capture industry.

## **B. NDIC Action**

Through its financing authority and oversight of numerous grant programs, NDIC has invested over \$130 million in grants and \$265 million in loans over the past 15 years into the research and development of carbon capture technologies and geologic exploration to survey underground storage locations in deep saline formations in North Dakota. NDIC approves grants and loans through its Renewable Energy Program, Oil and Gas Research Program, Lignite Research Program and its Clean Sustainable Energy Authority to carry out the legislative purposes of N.D.C.C. Ch. 38-22.

One of NDIC’s divisions, the Department of Mineral Resources’ Oil and Gas Division, carries out the regulatory responsibilities for the programs and permitting associated with geologic sequestration. Under N.D.C.C. § 38-22-08, there are 14 requirements that must be met before NDIC may issue a permit, and the N.D. Admin. Code provides additional regulatory requirements and procedures for NDIC to issue a permit. Under N.D.C.C. § 38-22-17, NDIC has the power to issue a certificate of project completion.

In 2013, NDIC amended N.D. Admin. Code 43-05-01 to meet the “as stringent as” standard by incorporating the U.S. Environmental Protection Agency’s (EPA) Class VI (Underground

Injection Control (UIC) program regulations under the federal Safe Drinking Water Act. Thereafter, North Dakota applied to be the primary enforcement authority for the UIC program. In 2015, the Legislature authorized a Legislative Management Study to review the potential benefits and costs to industry, State, and the environment for using carbon capture enhanced recovery methods. This study provided a blueprint for further CCUS development in the State.

NDIC's Lignite Research Program provides grants and funding for near term, practical research and development projects that provide the opportunity to preserve and enhance development of the State's abundant lignite resources, including CCUS. The Lignite Research Program is funded from several sources including the coal severance tax, coal conversion tax, and oil and gas tax revenues with approximately \$18.5 million available each year.

In 2017, NDIC approved Lignite Research Program's creation of the Advanced Energy Technology Fund to further accelerate the deployment of CCUS and other emerging technologies in North Dakota. The Legislature also passed a concurrent resolution requesting the United States Congress and the President to enact legislation expanding federal tax credits to cover carbon capture, utilization, and storage, and providing other incentives for carbon capture focused policies.

In 2018, EPA approved North Dakota's request to implement and enforce its own Class VI UIC program. Class VI injection wells have extensive site characterization and comprehensive monitoring requirements. This approval made North Dakota the first State to obtain Safe Drinking Water Act primacy for Class VI UIC wells, which is necessary for the long-term storage of carbon dioxide captured from industrial and energy related sources. NDIC's Oil and Gas Division regulates Class VI injection wells.

Also in 2018, NDIC's Lignite Research Program approved a \$15 million grant to Minnkota Power Cooperative to fund a preliminary study regarding a significant CCUS project at Minnkota. It also approved another \$5 million grant to Minnkota in 2020 to allow for the evaluation of additional geologic storage of CO<sub>2</sub> in underground formations adjacent to Minnkota's plant. This substantial investment by North Dakota led to another \$9.8 million grant from the U.S. Department of Energy ("DOE") in 2019.

In 2021, after a 5-year investigative period, NDIC approved the first Class VI injection permit for an operational commercial-scale CCUS project in North Dakota, Red Trail Energy. This approval process was completed in partnership with DOE and EERC. In 2022, NDIC approved its second Class VI storage facility permit for Minnkota's carbon storage facility in Oliver County, ND. Consequently, in December of 2023, Minnkota's project was awarded up to \$350 million in additional funding by DOE.

### **C. The North Dakota EERC**

EERC began in the 1950s as a lignite research laboratory and is recognized as one of the world's leading developers of cleaner, more efficient energy and environmental technologies to protect our air, water, and soils. Over the past 15 years, EERC has been involved extensively in testing, data collection, applied research, and technological development for CCUS.

In 2019, EERC was designated as the State Energy Research Center for North Dakota. It currently receives \$7.5 million from the Legislature every two years for the research and development of technologies geared towards addressing North Dakota's current and future CCUS needs, challenges, and opportunities.

Since 2005, NDIC has allocated over \$46 million to EERC to support carbon management efforts and initiatives. Accordingly, one of EERC's main focuses is on research and development supporting CCUS. EERC has been instrumental in providing essential technical information on CCUS for multiple projects focused on carbon management, including Red Trail Energy, Minnkota Power Cooperative, the Plains CO<sub>2</sub> Reduction (PCOR) Partnership, and North Dakota Carbon Storage Assurance Facility Enterprise (CarbonSAFE).

#### **D. North Dakota's Support of PCOR**

North Dakota's EERC is the leader of the PCOR Partnership. The PCOR Partnership is one of seven regional carbon sequestration partnerships operating under DOE's National Energy Technology Laboratory Regional Carbon Sequestration Partnerships Program. It is made up of public and private stakeholders in the United States and Canada.

Its objectives are to address regional capture, transport, use, and storage challenges facing commercial CCUS deployment by focusing on: strengthening the technical foundation for geologic CO<sub>2</sub> storage and enhanced oil recovery; improving application of monitoring technologies; promoting integration between capture, transportation, use, and storage industries; providing scientific support to regulators and policy makers; advancing capture technologies; and facilitating regulatory frameworks.

EERC receives funding from both North Dakota and DOE. Namely, NDIC sponsored \$240 thousand in 2003 for the PCOR Partnership's Phase I: Characterization Phase, \$1.27 million in 2005 for Phase 2: Validation Phase, and \$2.9 million in 2008 for Phase 3: Deployment Phase.

In Phase 1, the PCOR Partnership developed a suite of practical and environmentally sound strategies for carbon management that represented projects with commercial potential and a mix that would support future projects both dependent and independent of CO<sub>2</sub> monetization. The PCOR Partnership identified, quantified, and characterized over 1,000 stationary sources within its defined region that have a combined annual output of nearly 553 million tons of anthropogenic CO<sub>2</sub> from stationary sources.

Phase 2 focused on carbon storage field validation projects designed to develop the local technical expertise and the experience needed to facilitate future large-scale CO<sub>2</sub> storage efforts in the region's subsurface and terrestrial settings.

Phase 3 included designing and conducting monitoring, verification, and accounting programs as part of at least two large-volume commercially oriented projects that focused on injecting CO<sub>2</sub> into deep saline geologic formations for CO<sub>2</sub> storage. Large-scale field testing confirmed that a project of at least 1 million metric tons of captured CO<sub>2</sub> per year can achieve safe, permanent, and economical storage.

## **E. The North Dakota CarbonSAFE Project**

Through the North Dakota CarbonSAFE Project, EERC assists in characterizing geologic storage sites' suitability to permanently store CO<sub>2</sub>. The purpose of the CarbonSAFE projects is to improve and optimize procedures related to: (1) project site screening and selection; (2) site characterization; (3) baseline monitoring; and (4) subsurface monitoring. In addition, CarbonSAFE aims to compile information necessary to submit appropriate permits and design injection and monitoring strategies for commercial-scale projects.

Under North Dakota CarbonSAFE, EERC evaluated two ideal geologic storage complexes located adjacent to separate coal-fired facilities, gathered local public and stakeholder feedback, and conducted a comprehensive regulatory and economic analysis. North Dakota CarbonSAFE research has also proven the feasibility of CO<sub>2</sub> use for enhanced oil recovery in both conventional and unconventional oil fields. Denbury Resources is currently producing approximately 1,200 barrels<sup>8</sup> of carbon-negative<sup>9</sup> oil per day in Bowman County, ND using CO<sub>2</sub> for enhanced oil recovery.

## **F. The North Dakota CSEA**

North Dakota established CSEA in 2021 to promote large scale development and commercialization of emission reduction technology and projects within the State's energy industry. CSEA supports industry research, development, and technological advancements through partnerships and financial support for the large-scale development and commercialization of projects, processes, activities, and technologies that reduce environmental impacts and increase sustainability of energy production and delivery.

In 2021, the Legislature appropriated \$25 million in grant opportunities and \$250 million in commercialization loan programs. From this funding, CSEA approved \$100 million in a commercialization loan for Minnkota Power Cooperative and a \$7 million grant to EERC for the front-end engineering and design for the carbon capture facility at Coal Creek Station in North Dakota. Last year, in 2023, the Legislature appropriated an additional allocation of \$30 million in grant opportunities and \$250 million in commercialized loans.

## **G. North Dakota Industries**

North Dakota industries are naturally incentivized to invest in the development of CCUS given North Dakota's unique geology, which is ideal for safe and permanent geologic storage of CO<sub>2</sub>. Beginning in 2000, the Dakota Gasification Company's Great Plains Synfuels Plant (DGC Plant) began sending CO<sub>2</sub> through a 205-mile pipeline to Saskatchewan, Canada, where oil companies use it for enhanced oil recovery operations that result in permanent geologic sequestration. From

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<sup>8</sup>NDIC Department of Mineral Resources Monthly Oil Production Report, Cedar Creek and Cedar Hills Fields, November 2023. <https://www.dmr.nd.gov/oilgas/feeservices/fieldprodinj.asp>. Accessed Jun. 21, 2024.

<sup>9</sup>2022 Denbury Corporate Responsibility Report, Net GHG Emissions – Year Ended December 31, 2019, December 31, 2020 & December 31, 2021, p. 41. <https://www.denbury.com/wp-content/uploads/2022/11/Denbury-2022-CRR.pdf>. Accessed Jun. 21, 2024.



2000 to present day, the DGC Plant has captured and transported more than 40 million metric tons of CO<sub>2</sub> for geologic sequestration.

Today, North Dakota is one of only three States (Wyoming and Louisiana being the other two) that has Safe Drinking Water Act primacy for all well classes (I, II, III, IV, V, and VI). EPA directly implements the Class VI program in all other States, territories, and tribes. For North Dakota, NDIC implements and enforces its Class VI program and issues Class VI permits. As such, CCUS sites in North Dakota do not have to go through the unnecessarily burdensome and lengthy process generally associated with seeking federal permit approval. This accelerated and more efficient regulatory permitting process further serves to encourage North Dakota's energy industry to expeditiously implement CCUS.

#### **IV. Reliability of the Electric Grid**

As previously mentioned, Minnesota is not, and cannot be, an island within our shared regional transmission grid. Minnesota participates primarily within the MISO region, although a small portion of the state also participates within the Southwest Power Pool (SPP). Combined, MISO and SPP include 20 states and one Canadian province. To be sure, all members of MISO and SPP have cooperative responsibilities to support and to not undermine their shared regional transmission grids. Notwithstanding, recent unilateral actions taken by Minnesota unfortunately hinder grid reliability potentially resulting in significant consequences for the entire MISO and SPP regions.

Since 2018, the North Dakota Transmission Authority has been raising legitimate concerns about the reliability of our region's electric grid. Concerns include: increasing transmission congestion which limits the addition of new generation, especially wind; alarming rate of baseload power generation retirements across North America, projected to exceed 100 gigawatts by 2040; the growing frequency of grid emergency events (0 prior to 2016 compared to 48 since 2016); and a simultaneous, exponential growth in electric demand.

In early 2024, even Regional Transmission Operators, which are normally reserved in their public comments, released statements raising concerns about grid reliability. In February 2024, MISO stated in response to federal rulemaking that the new regulations “could threaten reliability in the MISO region and beyond.”<sup>10</sup> Likewise, in April 2024 SPP raised concerns that compliance with new regulations “will have deleterious impacts” and “SPP’s ability to maintain regional reliability will be directly impacted.”<sup>11</sup>

In response to new rulemaking, NDIC commissioned two reports by its Transmission Authority to study the impacts on grid reliability. In its April 2024 study, the Transmission Authority’s modeled scenario of premature lignite generation retirements within MISO would lead to 73,699 MWh of unserved electric load by 2035, leading to over \$1 billion in economic damages within

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<sup>10</sup> MISO’s Response to the Reliability Imperative, February 2024, p. 11.  
<https://cdn.misoenergy.org/2024%20Reliability%20Imperative%20report%20Feb.%2021%20Final504018.pdf?v=20240221104216>. Accessed Jun. 21, 2024.

<sup>11</sup> SPP Statement on the Recent EPA Greenhouse Gas Emissions Rule, April 2024.  
<https://www.spp.org/documents/71677/spp%20statement%20on%20epa%20final%20ghg%20rule%20202405020.pdf>. Accessed Jun. 21, 2024.

the region.<sup>12</sup> Exacerbating matters further, the Authority’s May 2024 study of coal retirements in both MISO and SPP concluded that more than 5 million Americans will be without reliable power by 2030 due to insufficient generation to meet peak demand. The amount of time our grid will experience blackouts in this scenario is predicted to become more frequent than the amount of time our grid experiences normal grid operating conditions. These blackouts are estimated to lead to over \$83 billion in economic damages.<sup>13</sup>

The North Dakota Transmission Authority has conservatively calculated a 3-5% annual increase in power demand in the coming decade. However, this does not account for growth caused by adoption of Artificial Intelligence, which will require a significant buildout of data centers and place additional strain on our grid.

The continuing electrification of our transportation sector is likewise complicating efforts to maintain a reliable grid. Ironically, while policies like “carbon-free” obligations are leading to the premature retirement of baseload power generators, they are simultaneously pushing electric demand higher. For one primary example, by mandating or otherwise pushing the sale and use of electric vehicles, electric power demand exponentially increases, further straining our shared regional transmission grid.

## V. Minn. Stat. §216B.1691 Statutory Overview

On February 7, 2023, Minnesota enacted H.F. No. 7 which, among other things, imposes “carbon-free” obligations on all electric utilities having eventual retail consumers in Minnesota. In relevant part, the statute is an amendment to Minn. Stat. §216B.1691. Minnesota Statutes Chapter 216B is entitled “Public Utilities,” but it nonetheless includes regulations on municipal and cooperative utilities, particularly with respect to §216B.1691.

Minn. Stat. §216B.1691 is entitled Renewable Energy Objectives. Included within this statute are various requirements for electric utilities to procure certain amounts of energy from certain types of energy sources. H.F. No. 7 specifically added a new subdivision, Minn. Stat. subd. 2g, imposing the “carbon free” requirement. Subdivision 2g provides as follows:

Subd. 2g. **Carbon-free standard.** In addition to the requirements under subdivisions 2a and 2f, each electric utility must generate or procure sufficient electricity generated from a carbon-free energy technology to provide the utility’s retail customers in Minnesota, or the retail customers of a distribution utility to which the electric utility provides wholesale electric service, so that at least the

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<sup>12</sup> Analysis of Proposed EPA MATS Residual Risk and Technology Review and Potential Effects on Grid Reliability in North Dakota, April 3, 2024, p. 32. [https://www.ndic.nd.gov/sites/www/files/documents/Transmission-Authority/Publications/MATS\\_Analysis\\_Report.pdf](https://www.ndic.nd.gov/sites/www/files/documents/Transmission-Authority/Publications/MATS_Analysis_Report.pdf). Accessed Jun. 21, 2024.

<sup>13</sup> Analysis of Finalized Rule for New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, May 17, 2024. <https://www.ndic.nd.gov/sites/www/files/documents/Transmission-Authority/Publications/AlwaysOnEnergyResearchGreenhouseGasReport5172024.pdf>. Accessed Jun. 21, 2024.

following standard percentages of the electric utility's total retail electric sales to retail customers in Minnesota are generated from carbon-free energy technologies by the end of the year indicated:

- (2) 2030        80 percent for public utilities; 60 percent for other electric utilities
- (3) 2035        90 percent
- (4) 2040        100 percent

Minn. Stat. §216B.1691, subd. 2g. "Carbon-free" is defined to mean "a technology that generates electricity without emitting carbon dioxide." Minn. Stat. §216B.1691, subd. 1.

"Electric utility" is defined to mean: "(1) a public utility providing electric service; (2) a generation and transmission cooperative electric association; (3) a municipal power agency; (4) a power district; or (5) a cooperative electric association or municipal utility providing electric service that is not a member of an entity in clauses (2) to (4). Minn. Stat. §216B.1691, subd.1(d). Thus, the Minnesota "carbon-free" requirement overbroadly attempts to regulate any entity, whether located within or outside of Minnesota, as long as the entity has a Minnesota customer or member that distributes to retail customers. This patent exercise of extraterritorial jurisdiction is highly problematic.

**VI. MPUC Request for Comments**

Minn. Stat. §216B.1691, subd. 2d (as amended) requires MPUC to "issue necessary orders detailing the criteria and standards" it will use to measure compliance with the carbon free standard. Accordingly, on July 7, 2023, MPUC issued a Notice of Docket Process and Timeline outlining the content and timeline of anticipated comment periods.

On November 8, 2023, MPUC issued a Notice of Comment Period opening the following topics for comment:

- 1. How should the Commission define carbon free? Are any clarifications necessary regarding what resources should be considered carbon free?
  - a) Provide examples of resources that would fit any proposed definition of carbon free, including any requested clarifications.
- 2. How should the Commission consider partial compliance with respect to Minn. Stat. §216B.1691 Subd. 2d.(b), including both subpoints i and ii?
- 3. What considerations should the Commission make when operationalizing the definition of "environmental justice areas" as defined in Minn. Stat. §216B.1691 Subd. 1(e)?
  - a) Considerations could include, for example, geographic specification of an "area" to census block, census track, or zip code.

4. Additional Considerations?

**VII. NDIC's Response to the Topics**

NDIC accordingly submits these comments, on behalf of North Dakota, with respect to topics 1 and 2 immediately above. In relation to these two topics, "carbon free" as used in Minn. Stat. §216B.1691 must be properly construed and applied so that applicable regulators consider energy that is generated while using CCUS technology "carbon free", at a minimum, to the full extent of the carbon being sequestered using CCUS technology.

**A. MPUC must recognize the definition of "carbon free" to include CCUS.**

Minn. Stat. §216B.1691, subd. 1(b) defines "carbon-free" as "a technology that generates electricity without emitting carbon dioxide." "Emissions" in the environmental context is commonly understood to refer to "substances discharged into the air." "Emission." *Merriam-Webster.com Dictionary*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/emission>. Accessed Jun. 21, 2024. *See also* "Emissions." *Britannica.com Dictionary*, Britannica, <https://www.britannica.com/dictionary/emission>. Accessed Jun. 21, 2024 ("1 ... the act of producing or sending out something (such as energy or gas) from a source ... 2. ... something sent out or given off").

The objective of CCUS technology is to reduce carbon emissions. CCUS technology captures CO<sub>2</sub> before it ever has a chance to enter the atmosphere. This technology consequently achieves the legislative intent by providing the same "carbon free" benefits as other accepted carbon free sources. It follows that MPUC must recognize that CCUS meets the statutory definition of carbon free. Correspondingly, CCUS technology achieves the overall legislative objective to reduce emissions that potentially contribute to atmospheric CO<sub>2</sub>.

DOE fully recognizes that CCUS technology is critical in accomplishing meaningful reductions in atmospheric CO<sub>2</sub> over the coming decades.<sup>14</sup> MPUC must likewise recognize that CCUS technology will reduce atmospheric CO<sub>2</sub> and accordingly that it is "carbon free" under the definition.

Indeed, failure to properly include CCUS and other similar technologies as "carbon free" would mean MPUC is parochially and arbitrarily narrowing the definition of "carbon free" to only those energy generation technologies that do not emit any carbon dioxide whatsoever, and exclusively to those that can be implemented within the borders of Minnesota. This artificial limiting of the definition of "carbon free" would not only be arbitrarily limiting, but also entirely counterproductive in achieving the legislative intent of the statute.

Instead, to put into practice the legislative intent to reduce atmospheric CO<sub>2</sub>, the definition of "carbon free" must duly recognize that new and innovative CCUS technologies do not discharge carbon dioxide into the atmosphere, but instead safely stow it deep into the ground.

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<sup>14</sup> <https://liftoff.energy.gov/carbon-management/>. Accessed Jun. 21, 2024.

**B. MPUC should, at a minimum, recognize CCUS as providing partial or full compliance with respect to Minn. Stat. §216B.1691 Subd. 2d.(b).**

Minn. Stat. §216B.1691, subd. 2d requires that MPUC allow for partial compliance with the carbon free standard for “electricity generated from facilities that utilize carbon-free technologies for electricity generation, but only for the percentage that is carbon-free.” The statute expressly requires partial credit for partially carbon free generation resources. This further supports that the Minnesota Legislature intended that CCUS technology would be included within the “carbon free” definition.

At the very least, MPUC should develop reasonable and workable rules that properly recognize the use of CCUS as a method of partially, or even fully, complying with the statute’s requirements. Failing to do so would similarly be arbitrary and entirely counterproductive in achieving the clear legislative intent underlying the statute.

Moreover, North Dakota’s regulation of CCUS technology currently has a requirement in place to report, record, and collect data regarding the volume of carbon that is sequestered. NDIC Department of Mineral Resources requires reporting and monitors injection rates and pressures, and it employs field inspectors who regularly monitor and audit injection reports. The dates and times of active injection are recorded with properly-calibrated and certified equipment, which can be correlated to power production to demonstrate a reduction in the carbon footprint of produced electricity.

Accordingly, with respect to this requirement, Minnesota should base the extent of partial or full compliance on the determination made by the applicable State responsible for the regulation of the energy generation source. For example, with respect to generators within its borders, North Dakota would provide credits and/or certify to the respective entities, that generate electricity using CCUS, the percentage or amount of such energy that is properly deemed carbon free.

Subsequently, MPUC must give full faith and credit to such certifications determined by the State of North Dakota when MPUC considers whether any related utility is compliant with the carbon free requirement. In connection with the permitting and monitoring of electricity generators within its borders, North Dakota will continue to properly collect and maintain rigorous and comprehensive data concerning CCUS operations. As such, it is appropriately and uniquely positioned to best evaluate and accurately quantify the amount of carbon sequestered by each energy generator within its borders.

**VII. Conclusion.**

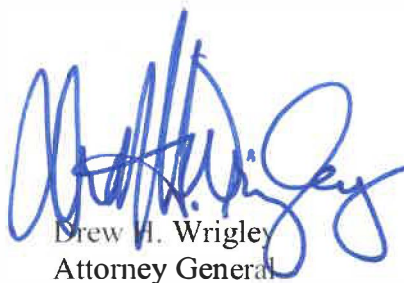
NDIC, on behalf of North Dakota, once again expresses its continuing deep concerns in relation to the extraterritoriality and constitutionality of Minn. Stat. §216B.1691. The statute, in addition to other violations, readily appears to directly contravene the dormant Commerce Clause and be federally preempted by both the Federal Power Act and the Clean Air Act.

Nonetheless, in relation to the pending MPUC Nov. 8, 2023 Notice, NDIC recommends MPUC duly include CCUS within the definition of “carbon free”, under Minn. Stat. §216B.1691, and that MPUC consequently craft and enact practical and well-tailored administrative rules that properly recognize the use of CCUS in partial or full compliance of the statute’s requirements.

Sincerely,



Doug Burgum  
Governor



Drew H. Wrigley  
Attorney General



Doug Goehring  
Agriculture Commissioner

This document has been filed with the eDocket system and served on the attached service list. Also enclosed is our Affidavit of Service.

cc:

The Honorable Governor Tim Walz  
The Honorable Attorney General Keith Ellison  
The Honorable Commissioner of Agriculture Thom Petersen  
The Honorable Melissa Hortman, Speaker of the Minnesota House of Representatives  
The Honorable Jamie Long, Majority Leader of the Minnesota House of Representatives  
The Honorable Lisa Demuth, Minority Leader of the Minnesota House of Representatives  
The Honorable Bobby Joe Champion, President of the Minnesota Senate  
The Honorable Erin Murphy, Majority Leader of the Minnesota Senate  
The Honorable Mark Johnson, Minority Leader of the Minnesota Senate  
The Honorable Patty Acomb, Chair, Minn. House Climate & Energy Finance & Policy Cmte  
The Honorable Chris Swedzinski, Minn. House Climate & Energy Finance & Policy Cmte  
The Honorable Nick Frentz, Chair, Minn. Senate Energy, Utilities, Environment & Climate Cmte  
The Honorable Andrew Mathews, Minn. Senate Energy, Utilities, Environment & Climate Cmte  
John R. Bear, Chief Executive Officer, MISO  
Clair J. Moeller, President and Chief Operating Officer, MISO  
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Katie Sieben, Chair, Minnesota Public Utilities Commission  
Joseph K. Sullivan, Vice-Chair, Minnesota Public Utilities Commission  
Valerie Means, Member, Minnesota Public Utilities Commission  
Hwikwon Ham, Minnesota Public Utilities Commission  
John Tuma, Minnesota Public Utilities Commission  
Will Seuffert, Executive Secretary, Minnesota Public Utilities Commission  
Service List

Attachment: Letter from NDIC to Governor Walz, Attorney General Ellison, and Commissioner Petersen, January 2023, regarding H.F. 7 and S.F. 4 introduced in the 93<sup>rd</sup> Legislature of Minnesota

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