
Carbon



Background

Managing carbon dioxide (CO₂) will be a fundamental part of our energy future in North Dakota, nationally and globally. For our state, this will mean reducing total overall emissions of CO₂ directly from power plants, ethanol plants and a range of other sources, while expanding beneficial land management practices that increase natural carbon storage in soils, woodlands, and wetlands, thereby offsetting emissions of CO₂ elsewhere.

NDARE members differ in their views on regulation of CO₂ emissions —how much, how soon, which policy measures, and whether they should be implemented first regionally, nationally or globally. However, members do agree that North Dakota has a major economic self-interest, indeed necessity, to step up to the plate proactively with measures that help develop carbon management experience, know-how and leadership—before policy requires us to act.

Fortunately, North Dakota is blessed with a range of potential carbon management advantages it should continue to develop in a strategic and step-wise fashion. As this report emphasizes, North Dakota is top-ranked in its potential for zero and low-carbon wind and cellulosic biomass energy. Also, our state has the world's largest example of commercial scale capture and storage of CO₂ from coal at Dakota Gasification in Beulah, where roughly 2.5 million tons of CO₂ are captured annually from lignite, transported to Saskatchewan and injected deep underground into oil and gas formations.¹ And North Dakota stands out nationally with regards to terrestrial carbon sequestration as well. The North Dakota Farmers Union is, along with the Iowa Farm Bureau, the leader in organizing agricultural producers nationally to undertake no-till, rotational grazing and other land management best practices and in securing financial compensation for those producers who provide to society the environmental service of storing carbon.

Potential

According to the New York Times, the carbon market is now worth about \$30 billion and that could grow to \$1 trillion within a decade.²

Companies and institutions that reduce their greenhouse gas emissions and track those reductions can earn tradable credits while finding creative ways to offset their carbon exposure.

Farmers Union Carbon Credit Program

Conservation-based farming and ranching practices such as no-till farming or rotational grazing that store carbon in the soil, thereby preventing it from combining into CO₂ in the atmosphere, create a carbon credit. This credit can be sold on the Chicago Climate Exchange (CCX).

The North Dakota Farmers Union has been very active in the carbon credit market. As of June 24, 2008, 2,893 farms and ranches totaling 3,666,304 acres are enrolled in the Farmers Union Carbon Credit Program. In the Summer of 2008, NDFU sent over \$6 million to 2,300 producers in 26 states.

Only about 10 percent of the acres that are under conservation tillage, or about 3.5 percent of the state's total cropland, have been enrolled in the carbon credits program.⁴

Chicago Climate Exchange

Most American firms engaging in carbon or greenhouse gas trading, including the city of Fargo and the Farmers Union, do so through the Chicago Climate Exchange (CCX). CCX was launched in 2003. It is the only active voluntary, legally binding trading system to reduce emissions of all six major greenhouse gases (GHGs), with offset projects worldwide.

CCX Members represent all sectors of the global economy, as well as public sector innovators. Reductions achieved through CCX are the only reductions made in North America through a legally binding compliance regime, providing independent, third party verification by the Financial Industry Regulatory Authority (FINRA, formerly NASD).

CCX emitting Members make a voluntary but legally binding commitment to meet annual GHG emission reduction targets. Those who reduce below the targets have surplus allowances to sell or bank; those who emit above the targets comply by purchasing CCX's Carbon Financial Instrument® (CFI®) contracts.

The commodity traded at CCX is the CFI contract, each of which represents 100 metric tons of CO₂ equivalent. CFI contracts are comprised of Exchange Allowances and Exchange Offsets. Exchange Allowances are issued to emitting Members in accordance with their emission baseline and the CCX Emission Reduction Schedule. Exchange Offsets are generated by qualifying offset projects.

CCX Members benefit in a number of ways. Third party verification of emission reductions lends CCX Members credibility in the marketplace. By engaging in a voluntary and legally binding commitment to mitigate financial and other risks of a carbon constrained world, they are demonstrating a proactive approach to shareholders, rating agencies and customers. Lastly, recognized as leaders, they can drive policy development based on practical, hands-on experience.⁵

[NDARE Policy Background Document](#)



Fargo - Making Green by Going Green

Fargo has been capturing methane at their landfill and employing a wind tower and solar panels to generate electricity sales while also earning carbon credits. The city is showing around a 35 percent annual return on a \$1 million investment.

Fargo went back to 2003 to track the amount of carbon they had offset by capturing methane. In early 2008, they sold those historic carbon credits for over \$600,000 on the Chicago Climate Exchange. The city projects revenues for carbon credits to be over \$300,000 annually. If the carbon market trends up as anticipated, Fargo's annual carbon earnings could easily top \$1 million in several years. As an added bonus, the emissions being offset are equal to removing the emissions equivalent of 27,000 vehicles on a yearly basis.

Source: City of Fargo⁷

Midwestern Greenhouse Gas Accord

The Midwestern Greenhouse Gas Accord is a regional agreement by six governors and the Premier of one Canadian province to reduce greenhouse gas (GHG) emissions to combat climate change. Signatories to the Accord, which is led by the Midwestern Governors Association (MGA), are Minnesota, Wisconsin, Illinois, Iowa, Michigan, Kansas, and Manitoba. Observers of the Accord are Indiana, Ohio, and South Dakota.⁶

The Accord establishes the Midwestern Greenhouse Gas Reduction Program, which aims to:

- ☼ establish greenhouse gas reduction targets and time frames consistent with signing states' targets;
- ☼ develop a market-based and multi-sector cap-and-trade mechanism to help achieve those reduction targets;
- ☼ establish a system to enable tracking, management, and crediting for entities that reduce greenhouse gas emissions; and
- ☼ develop and implement additional steps as needed to achieve the reduction targets, such as a low-carbon fuel standards; and regional incentives and funding mechanisms.

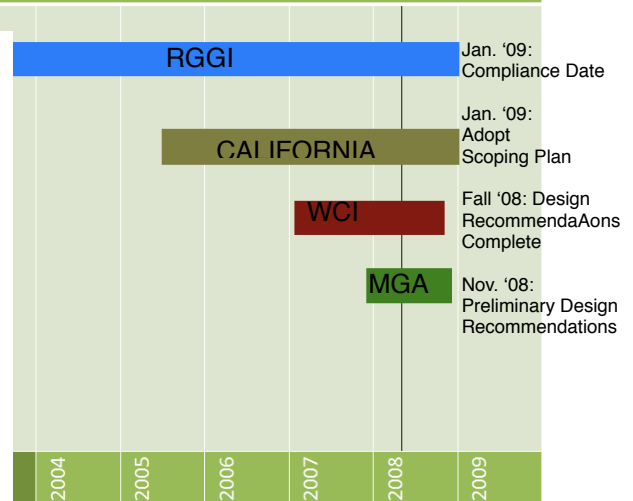
The GHG registry will be managed by The Climate Registry, which manages the registry for other US state programs. One of the first actions was to convene an Energy Security and Climate Stewardship Platform to guide future development of the Midwest's energy economy.



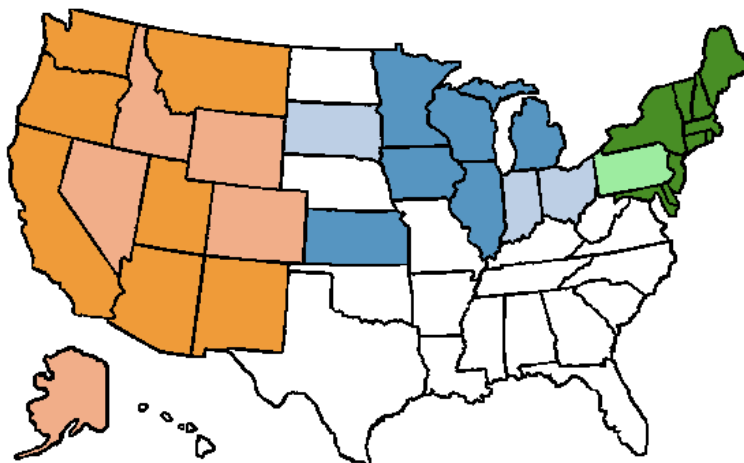
States Covered by Greenhouse Gas Accords equal 50 percent of population and more than 50 percent of GDP

Source: <www.pewclimate.org>

Timelines of the Regional Greenhouse Gas Initiatives



Source: Midwest Governors Association



- Regional Greenhouse Gas Initiative RGGI
- RGGI Observer
- Midwestern Regional GHG Reduction Accord
- MRHGRA Observer
- Western Climate Initiative
- Western Climate Initiative Observer

Source: www.PewClimate.org