

GREENWAY REPORT



HEARTLAND
GREENWAY

FALL 2022

NEW LAW ADVANCES CCUS, SUPPORTS FARM ECONOMY



"This initiative will help jump-start climate progress, while delivering more savings at the pump, greater long-term energy security, and a welcome economic boon to rural communities."

- Emily Skor, Growth Energy

"The enactment of the Inflation Reduction Act reinforces the essential role these technologies will play in our nation's broader climate strategy and solidifies America's domestic energy, industrial and manufacturing sectors as leading the way to a decarbonized global economy." - Madelyn Morrison, Carbon Capture Coalition

Carbon capture technologies have been in use for decades and are essential to the development of a decarbonized economy. To encourage its growth, the recently approved federal Inflation Reduction Act includes significant investments in clean energy production and new mechanisms to reduce carbon emissions, including carbon capture, utilization, and storage (CCUS) projects like Heartland Greenway.

The move to accelerate CCUS deployment, which will benefit agriculture and other industries, won the support of the leading advocates for domestic energy production.

"The Carbon Capture Coalition applauds the enactment of these enhancements, which will be instrumental in scaling the carbon management industry at the rate necessary to achieve midcentury climate targets, while retaining and creating family-sustaining jobs and safeguarding America's domestic

energy production," said Madelyn Morrison, external affairs manager of the Carbon Capture Coalition.

"This law will help maximize our industry's contributions to a cleaner future by expanding the volume of low-carbon biofuels available across the entire transportation sector - on the ground, in the air, and at sea," said Emily Skor, CEO of Growth Energy.

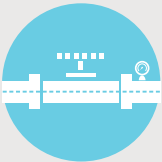
The Carbon Capture Coalition is a nonpartisan collaboration of more than 100 companies, unions, conservation, and environmental policy organizations, working to build federal policy support to enable economywide, commercial scale deployment of carbon management technologies.

Growth Energy is the leading biofuel trade association in the country, representing producers and supporters of ethanol.

ABOUT HEARTLAND GREENWAY



Captures carbon emissions at the source, before they are released into the atmosphere.



Transports liquefied CO₂ to geologic storage sites where it will be stored safely and permanently thousands of feet underground.



Gives customers the ability to market their CO₂ via terminals and offtake connections for value-added commercial and industrial uses, such as livestock processing.



WHAT YOU NEED TO KNOW ABOUT THE HEARTLAND GREENWAY

- Heartland Greenway is the project name for a carbon capture, utilization, and storage (CCUS) system that will provide biofuel producers and other industrial processors in five Midwest states with a long-term, cost-effective means to reduce their carbon footprint.
- Constructed and operated by Omaha-based Navigator CO₂, Heartland Greenway will strengthen biofuel and industrial economies in Illinois, Iowa, Minnesota, Nebraska, and South Dakota.
- Heartland Greenway will provide CCUS services for more than 30 industrial processors across the agriculture and food production value chains, representing over 10 million tons of annual CO₂ emissions, including the two largest bioethanol producers in the United States.
- Navigator plans to start Heartland Greenway construction in 2024, which will create more than 9,000 high-quality construction jobs, increase personal income that support families and communities, and boost local businesses and suppliers.
- Heartland Greenway will help customers finance and construct carbon dioxide (CO₂) capture equipment, and safely transport CO₂ via a new pipeline network to a safe, secure, underground site.
- Once fully realized, Heartland Greenway will have the capacity to transport up to 15 million metric tons of CO₂ annually, which is the equivalent to the emissions from approximately 3.2 million cars.*

**Source: United States EPA - Greenhouse Gas Equivalencies Calculator*

More information is available at heartlandgreenway.com.

PIPELINE & EASEMENT INFORMATION

The Navigator team continues to meet with landowners, community leaders, and stakeholder groups throughout the five-state project region to provide information about the project, CCUS, pipeline construction and operations, and easement agreements.

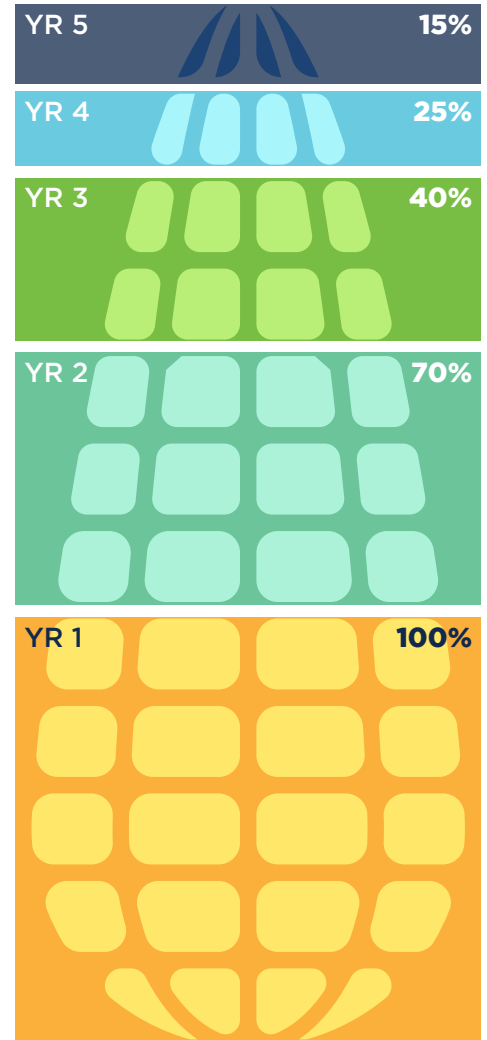
A few of the common discussion points that come up during those meetings include:

- The pipeline easement is for a single pipe, and is only for carbon dioxide (CO₂) transportation.
- Permanent easements are being sought for 50 feet, and when construction is complete, landowners will be able to continue to farm, lay tile, and use the land like they always have. Temporary easements up to 75 feet will be needed to allow the necessary space for construction equipment, but those easements revert fully back to the landowner upon construction completion.
- Local and regional agricultural land market studies will be used to calculate the initial land use compensation offer, to initiate the negotiation process.
- Heartland Greenway will consult with each landowner to determine the unique agricultural or ranching operations.
- Maintaining drain tile systems and mitigating impacts to agricultural fields throughout the construction process is a priority.
- Local contractors or property owners (with compensation) will be used to support, replace, and reconnect the drain tile systems as required.
- Easement agreements will include language protecting landowners from liability and stating that Navigator will be responsible for maintenance and operation of the pipeline.

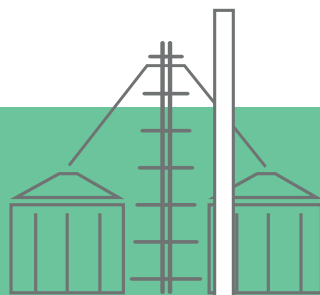
Crop Loss Compensation Model

Totaling **250%** Paid Prior to Construction

Navigator will be responsible for any crop loss or other damages as a result of construction and operations of the line.



On average, one bushel of corn (56 pounds) processed by a dry mill ethanol biorefinery produces:



17 pounds of captured biogenic carbon dioxide*

*Approximately 25 percent of U.S. dry mills capture CO₂ from fermentation.



15.1 pounds of distillers grains animal feed (10 percent moisture)

2.9 gallons of denatured fuel ethanol



0.8 pounds of corn distillers oil



86% of U.S. agricultural products are grown on family farms or ranches.

SOURCE: RFA based on U.S. Dept. of Agriculture data

SOURCE: American Farm Bureau Foundation, 2021



MEET STEVE LEE

Executive Vice President of Engineering & Construction at Navigator CO₂

Navigator’s leadership team has more than 200 years of industry experience and has built more than 6,000 miles of pipeline in the U.S. As the person in charge of engineering and construction, Steve Lee has more than 20

years of oil and gas experience in transmission and midstream engineering. He earned his MBA after graduating from Texas A&M University with a bachelor’s degree in mechanical engineering, and is a registered professional engineer in Texas.

Steve shared his thoughts on the future of carbon capture, his insights on the construction phase of Heartland Greenway, and how he hand-selected his team to set up this project for success.

Q: What should everyone know about Carbon Capture, Utilization and Storage (CCUS)?

A: CCUS projects have been successfully implemented here in the United States and abroad for decades. As times continue to change, our industry is working hard to minimize our carbon footprint. CCUS will continue to advance and evolve, but we are determined to utilize proven technology to address our environmental challenges.

Q: What role do you think CCUS will play in everyone’s lives in the next two decades?

A: Everyone will be making decisions that take into account our carbon footprint – like how we evaluate mileage per gallon on a car purchase or select energy plans based on renewable sources.

Q: How was the Navigator/Heartland Greenway project team assembled?

A: We assembled an extraordinary team staffed by people who know how to work in this industry, day

in and day out. Our team members have diversified experiences, deep knowledge, strong ethics, and a successful track record of doing the right thing. Our people are passionate about what they do and have been hand selected to not only contribute, but also thrive in our fast-paced, dynamic working environment.

Q: What is your overriding goal for the Heartland Greenway project?

A: To build a state-of-the-art, safe, and reliable CO₂ carbon management platform that adds value to our customers and the communities in which we operate. We want to build public awareness of the extensive safety standards that will be observed during construction and rigorous maintenance of pipeline systems.

Q: What’s the biggest project challenge?

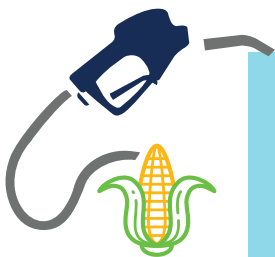
A: The main project challenge is misinformation surrounding both carbon dioxide and the pipeline industry. Pipelines are the safest mode of transportation. We need to correct myths with facts by telling the story of pipeline safety and the massive amount of engineering and safety protocols that guide the construction and maintenance of the pipeline at every stage.

Q: What’s the biggest project opportunity?

A: The ability to have all parties benefit in such a unique opportunity that links the pipeline industry to the ethanol and fertilizer manufacturers to the agriculture value chain.

Q: Describe your average day.

A: Long, busy, and rewarding. I have the pleasure and responsibility to lead and support the multistate Engineering and Construction team. My day is filled with developing plans and procedures and working with engineers, right-of-way personnel, environmental and permitting agencies, and external stakeholders.



Iowa leads the US in ethanol production, with 57% of its corn production (1.5 billion bushels) being used for 27% of all US ethanol. Illinois provides 22% of all ethanol.

IL SOURCE: Illinois Corn Marketing Board



Iowa was the largest corn producer in 2021, while Illinois was second. Together, the two states produced one-third of all US corn production.

SOURCE: US Department of Agriculture

A COMMITMENT TO SAFETY WHEREVER WE GO

The managers, engineers, workers, and contractors involved in Heartland Greenway share a commitment to meet and exceed the rigorous environmental, construction, health, and safety standards required by local, state, and federal regulators and often go above and beyond what is mandated. We strive to be good neighbors, by keeping safety a priority. Our experienced and seasoned management team has safely constructed and operated thousands of miles of pipeline in communities throughout the U.S.

The Heartland Greenway system has been designed to minimize impacts on land, waterways, and wildlife habitats, in addition to taking into account rural communities, higher population areas, and other sensitive areas. We've trained our employees to perform their day-to-day job responsibilities in a safe and healthy manner, and have established construction, operating, and maintenance programs that ensure the ongoing integrity of our operation.



Navigator will design and construct Heartland Greenway to meet or exceed safety, design, construction, and operation standards.



Leak Detection and Continuous Monitoring



24/7 Continuous Monitoring
Internal and external systems to include pressure monitoring, mass balance system, and real time transient model

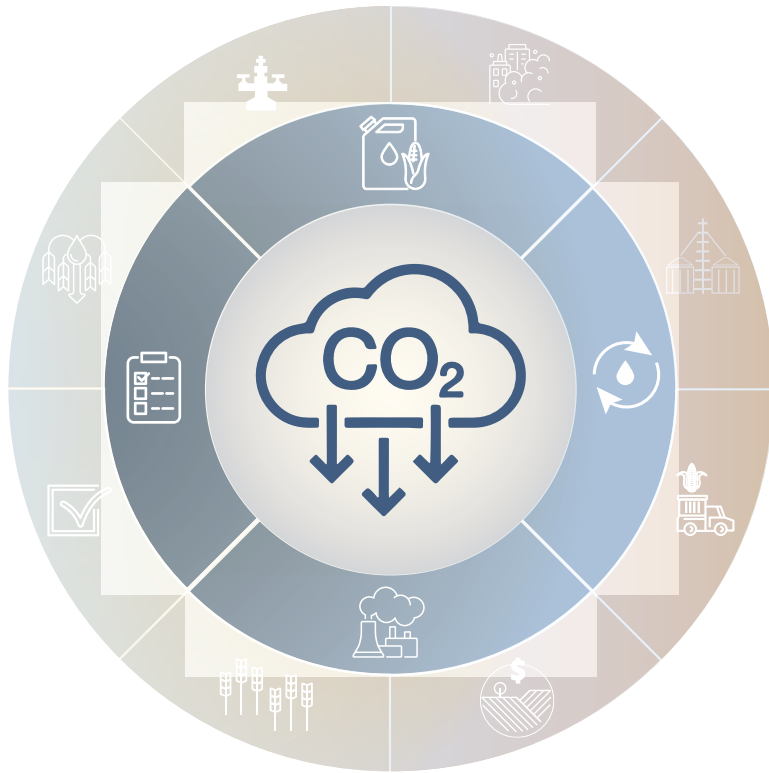


Semi-Monthly Aerial Patrol
Surveillance along pipeline route to identify potential risks



CO₂ Detection Devices
Installed at locations along pipeline route and booster stations

To learn more about the safety design elements we're incorporating on Heartland Greenway, please visit heartlandgreenway.com.

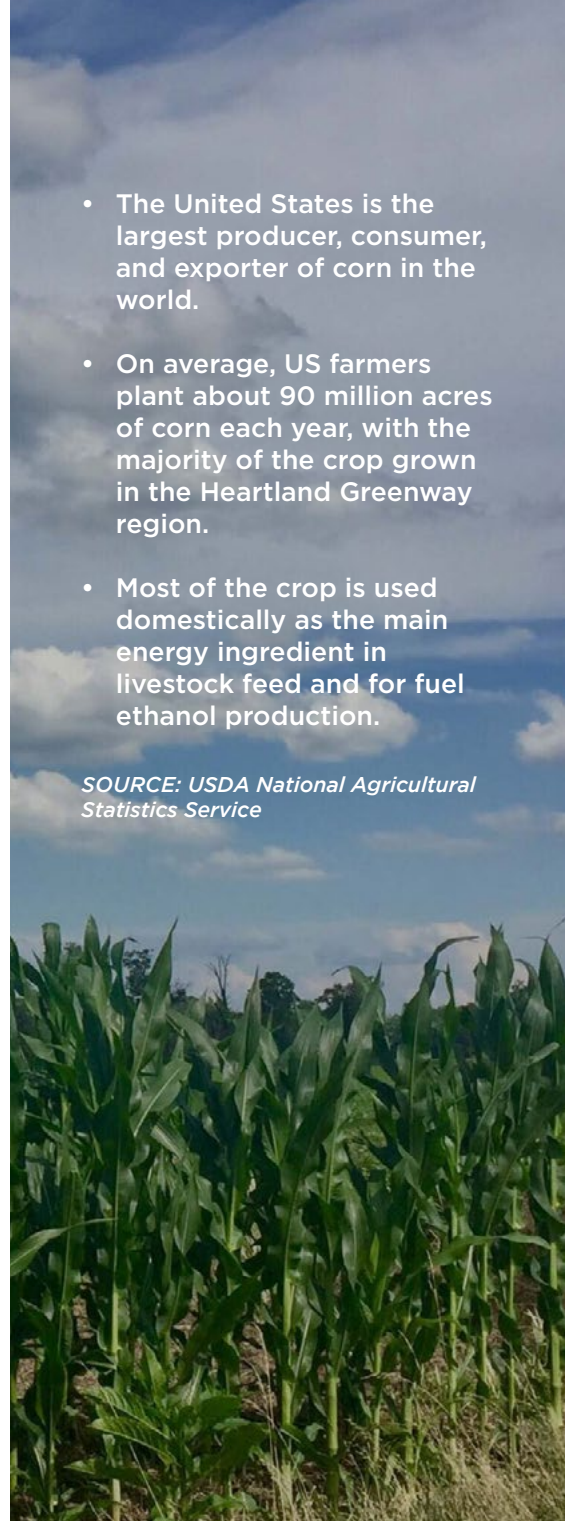


- The United States is the largest producer, consumer, and exporter of corn in the world.
- On average, US farmers plant about 90 million acres of corn each year, with the majority of the crop grown in the Heartland Greenway region.
- Most of the crop is used domestically as the main energy ingredient in livestock feed and for fuel ethanol production.

SOURCE: USDA National Agricultural Statistics Service

WANT THE FACTS ABOUT CCUS?

Scan this code to watch a video to learn more about this important carbon capture technology works.



CONTACT US

The Greenway Report is a quarterly publication of Omaha-based Navigator CO₂ Ventures, with headquarters at 13333 California St., Suite 202, Omaha NE 68154.

For additional information, please visit the Heartland Greenway website at heartlandgreenway.com, email info@heartlandgreenway.com or call 402.520.7089.



HEARTLAND GREENWAY



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