



SUMMIT CARBON
SOLUTIONS

South Dakota Public Utilities Commission
Public Input Meeting
March 2022

Summit Carbon Solutions Objectives

- Provide Summit Carbon Solutions Project Overview to South Dakota Stakeholders
- Listen and respond to concerns, and seek to find common ground with South Dakota Stakeholders
- Who?
- Why?
- What?
- Where?
- When?
- How?



Experienced Leadership and Team

Summit Carbon Solutions

- SCS Carbon Transport LLC is the *Applicant* and owned by Summit Carbon Solutions
- Company founded in the Midwest with agriculture and ethanol industry connections and sponsorship
- Investors include John Deere, Continental Resources, ethanol partners, and landowners

Industry Experts

- Experienced professionals and experts that have safely and successfully designed, constructed, and operated thousands of miles of pipeline on scores of projects

South Dakota Employees and Contractors

- Committed to use local contractors, local suppliers, and local businesses to provide ongoing economic benefits to local communities and the Midwest

Global and National Momentum

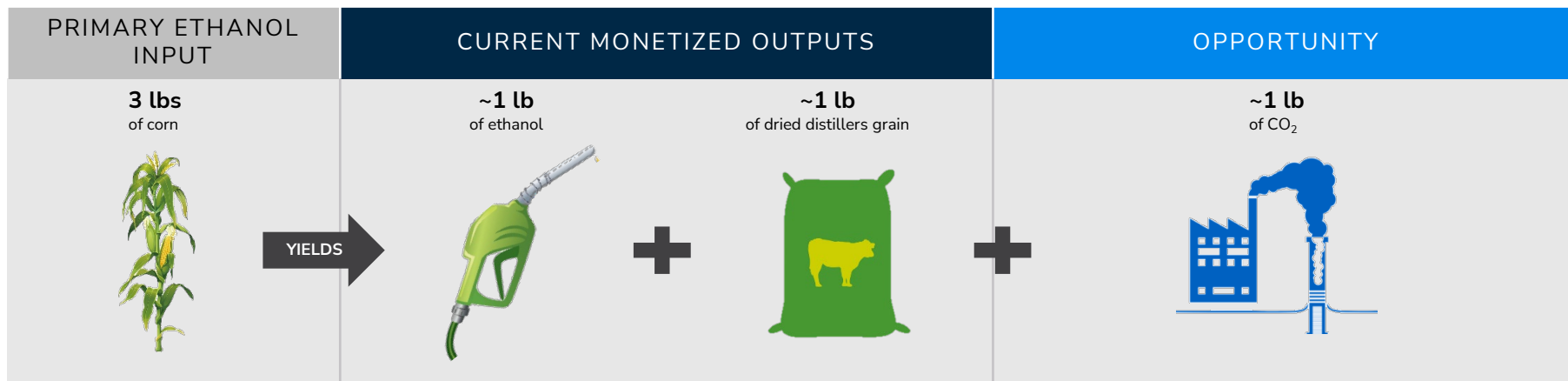
Research, Goals, and Actions

- Decades of research investments (\$ billions) in carbon capture and sequestration technology
- Federal and state goals, regulations, and actions to promote carbon capture and a low carbon fuel environment

The do nothing alternative is not a viable solution for 7 South Dakota plant partners and supported economies

South Dakota's Ethanol Leaders partnering with Summit Carbon Solutions are turning this commercial risk into an opportunity

Ethanol Carbon Capture and CO₂ Characteristics



Ethanol Fermentation Carbon Dioxide (CO₂)

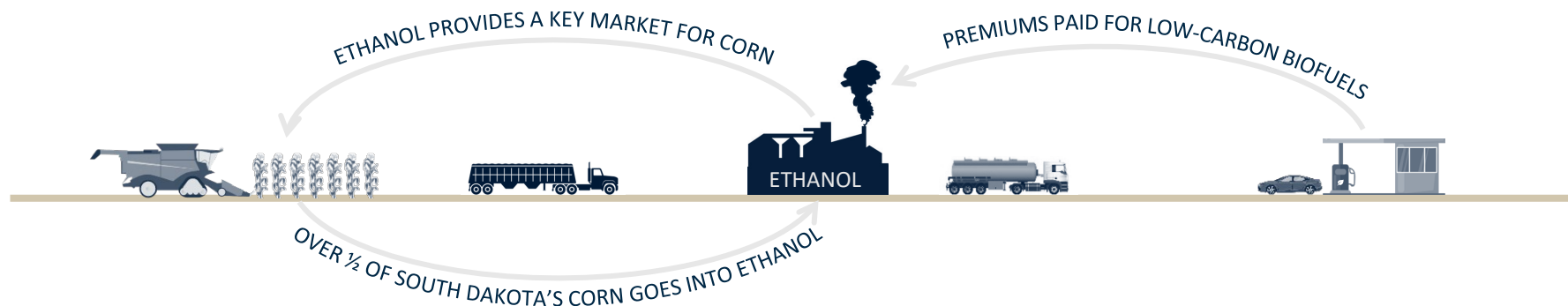
- High purity CO₂ gas stream from existing emissions source
- CO₂ is used as a fire retardant and found in food and beverages
- CO₂ is not flammable, combustible, or explosive





Enhancing the Long-Term Profitability of Ethanol & Agriculture

SOUTH DAKOTA ETHANOL MUST COMPETE AND THRIVE IN A LOW-CARBON WORLD



EACH YEAR, THE ETHANOL
INDUSTRY ADDS:

UNITED STATES

\$43B+

of annual GDP
contribution

EACH YEAR, THE ETHANOL
INDUSTRY SUPPORTS:

340,000+

jobs

SOUTH DAKOTA

\$590M+

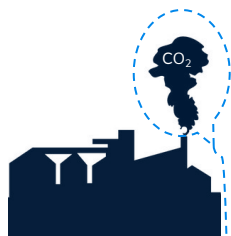
of annual GDP
contribution

5,300+

jobs

Summit Carbon Solutions Broader Project Overview

INTEGRATED CARBON CAPTURE AND STORAGE BUSINESS HEADQUARTERED IN THE MIDWEST



Step 1

The CO₂ system design for **12 million metric tons of CO₂ from facilities** in the 5-state Midwest footprint.

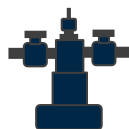
Seven ethanol plant partners in **South Dakota** with the potential to capture ~**1.75 million metric tons of CO₂**.



Step 2

The CO₂ will be transported via a **pipeline network that spans nearly 2,000 miles** and will be **completed in 2024**.

Over 469 miles of pipeline and four pump stations in South Dakota.



Step 3

The CO₂ will be **permanently and safely stored deep underground in North Dakota**.

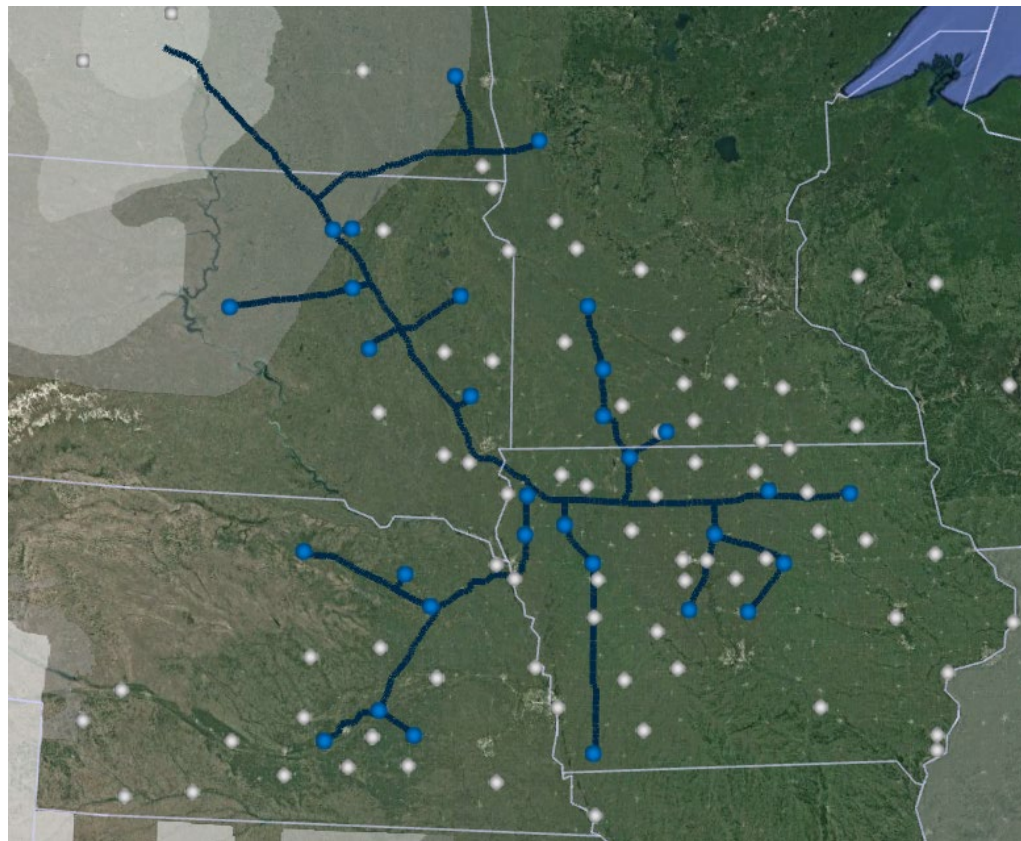
Sequestration is not planned or feasible in South Dakota project footprint.

Project Location & Partner Facilities

**Over ½ of South
Dakota's corn goes
into ethanol**

**~200-300 million
bushels of corn per year**

procured by seven connected South Dakota ethanol plants

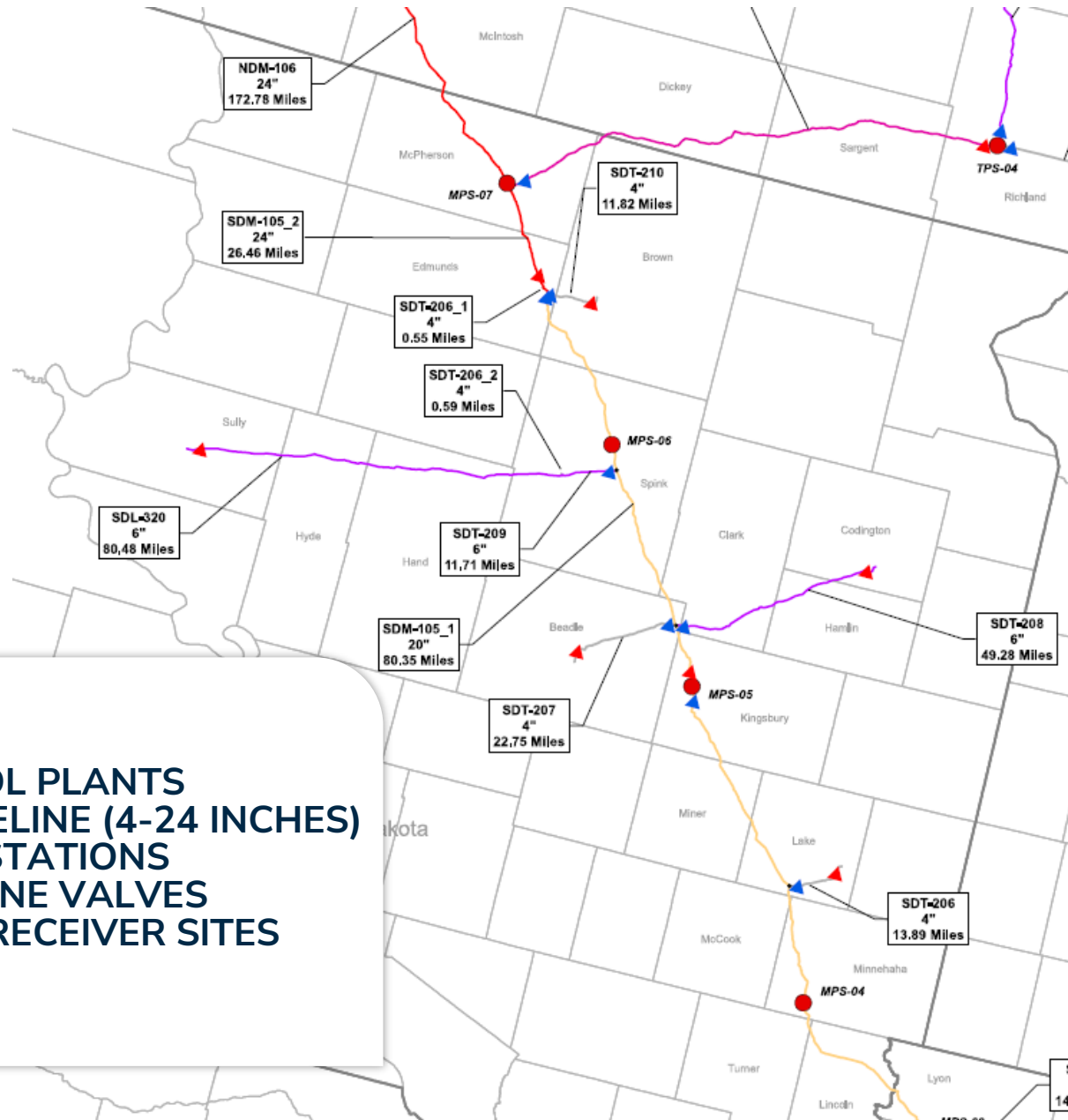


SOUTH DAKOTA BIOREFINERY PARTNER COMPANIES





South Dakota Facilities Overview



7 ETHANOL PLANTS
~ 469 MILES OF PIPELINE (4-24 INCHES)
4 PUMP STATIONS
~16 MAINLINE VALVES
5 LAUNCHER-RECEIVER SITES

Preliminary South Dakota Economic Benefit Analysis

Estimated Total Construction Costs

- Budgeted ~\$785MM (2022 – 2024)

Estimated Annual Operating Cost

- Budgeted ~\$37MM (2025)

Estimated Total Construction State and Local Tax Contribution

- Budgeted >\$28MM (2022 – 2024)

Estimated Annual State and Local Tax Contribution

- Budgeted >\$10MM (2025)

County	Miles	Mile %
McCook	2.24	0.5%
Turner	2.17	0.5%
Lincoln	23.49	5.0%
Minnehaha	26.64	5.7%
Sully	19.74	4.2%
Beadle	36.42	7.8%
Clark	22	4.7%
Codington	12.05	2.6%
Edmunds	24.31	5.2%
Hamlin	13.03	2.8%
Hand	31.3	6.7%
Hyde	18.73	4.0%
Kingsbury	29.31	6.2%
Lake	32.75	7.0%
Miner	14.76	3.1%
Spink	73.87	15.7%
Brown	28.07	6.0%
McPherson	58.2	12.4%

South Dakota Projected Project Timeline



Land Survey Permissions and Voluntary Easement Acquisitions

Early and Often Landowner Communication is Important

- Continue to conduct Public and Landowner Meetings
- Land Agents are ready and available to discuss the project, process, and easements
- Interest in Landowner input

Surveys and Permissions

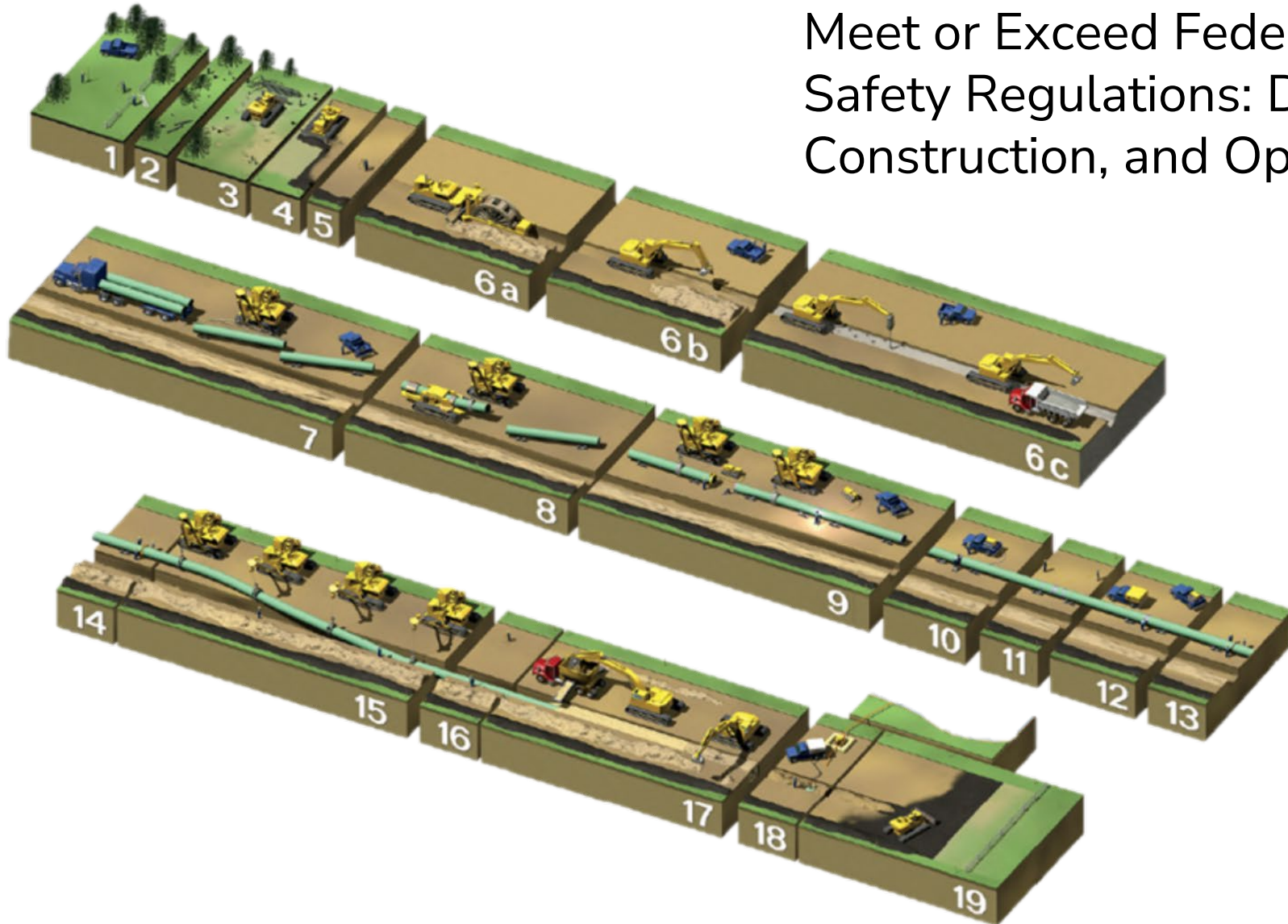
- Civil, environmental, and cultural surveys are paramount to permitting process

Voluntary Easement Acquisition

- Striving for 100% voluntary easements

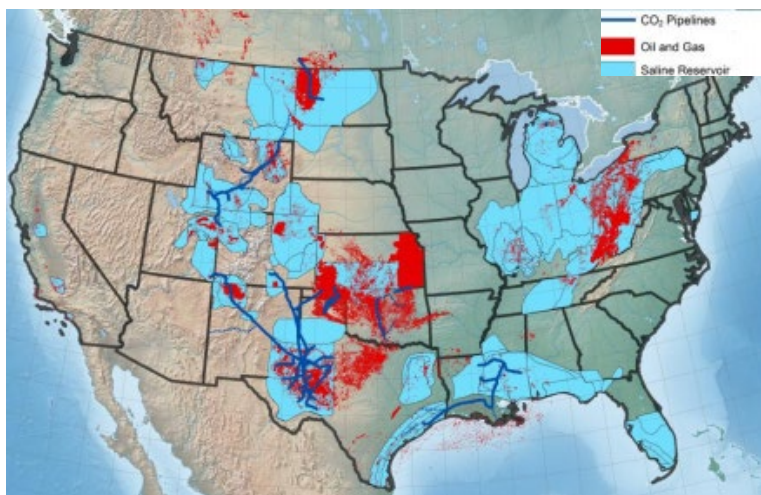
Construction Process

Meet or Exceed Federal
Safety Regulations: Design,
Construction, and Operations



Carbon Capture, Transportation and Storage is Safe and Proven

CURRENT U.S. CO₂ PIPELINE FOOTPRINT



- ✓ Capture technology has been deployed at 40+ ethanol facilities throughout the U.S.
- ✓ More than 5,000 miles of CO₂ pipelines exist in the U.S.
- ✓ SCS will only utilize highly rated and safe materials, including carbon steel
- ✓ **Comply with robust regulatory framework and utilize proven technologies to ensure public safety**

Key Takeaways



Budgeted \$785 million in construction costs and \$37 million in annual operating costs in South Dakota



Budgeted >\$28 million in construction and >\$10 million in annual operating State and Local Tax Benefits in South Dakota



Up to 12M metric tons of CO₂ is captured and stored every year



The do nothing alternative is not a viable solution for the 7 South Dakota ethanol partners and supported economies



Project will use proven, safe technology and meet or exceed Federal Safety Requirements (DOT PHMSA).



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