

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION
OF SCS CARBON TRANSPORT LLC FOR
A PERMIT TO CONSTRUCT A CARBON
DIOXIDE PIPELINE.

HP24-001

DIRECT TESTIMONY OF

RONALD FRANKENSTEIN, SPINK COUNTY, SD

ON BEHALF OF

SUMMIT CARBON SOLUTIONS, LLC

EXHIBIT #

December 13, 2024

1 **Q. Please state your name and business address for the record.**

2 A. My name is Ronald Frankenstein. My address is 39198 180th Street, Redfield, SD.

3 **Q. What is your occupation?**

4 A. I am a Spink County farmer/rancher for 48 years.

5 **Q. Please briefly describe your operation.**

6 A. I have been a farmer for 48 years operating a corn, soybean, and cattle operation in Spink
7 County with my son. Prior to farming, I utilized my BS/MS degrees in engineering designing
8 irrigation equipment in Nebraska.

9 **Q. Please describe your affiliation with Summit, Redfield Energy, and Glacial Lakes**
10 **Corn Processors?**

11 A. In 2005, I and several other farmers began an effort to finance and construct Redfield
12 Energy, LLC with the able management of Glacial Lakes Corn Processors of Watertown. Our
13 ethanol plant and the others in South Dakota have provided a much-improved marketplace for
14 our corn. About two-thirds of South Dakota corn production goes into ethanol manufacture.
15 About 98 percent of my corn is delivered to ethanol plants.

16 **Q. What is the basis for your testimony?**

17 A. I seek to see agriculture, Summit, and ethanol succeed and to testify that the Summit
18 project is good for farmers, ethanol plants, and South Dakota in general.

19 **Q. Why is the Summit project necessary for you/your neighbors/South**
20 **Dakota/Ethanol?**

21 A. The markets for America's corn include 1) *export*, which is struggling due to South
22 America's ability to expand and produce at lower costs; 2) *animal feed*, which is not likely to see
23 expansion, and 3) *ethanol production*. Some 40 percent of all U.S. corn is converted into

1 ethanol, which is a net usage of 25 percent since ethanol production also produces distillers
2 grains, a high protein co-product of the processing.

3 The third product of ethanol manufacture is carbon dioxide. Here lies the problem.
4 Despite a corn crop “harvesting” 36,000 pounds of carbon dioxide per acre (Michigan State
5 Univ. Ext.) during the growing season, a sizable amount of carbon dioxide is released during
6 fermentation of the corn mash during ethanol manufacture. Capture and storage of this discharge
7 is the next step in providing a fuel that meets the Low Carbon Fuel Standards adopted by an
8 increasing number of states.

9 Many regions of our country have geological underground formations that are suitable for
10 permanent storage of carbon dioxide, but 57 ethanol plants do not. Their solution is to transport
11 carbon dioxide via the safest method to areas of the country that have this capacity.

12 Since 1870 when Standard Oil began extracting crude oil from underground, estimates
13 indicate upwards of one trillion barrels of crude oil have been brought to the surface. Crude oil
14 varies from 82 to 87 percent carbon, and a good portion of that ends up in the atmosphere. It
15 seems appropriate for ethanol plants to send their carbon to these underground locations.

16 EVs (electric vehicles) will increasingly diminish the market for gasoline (and ethanol)
17 unless the moder E10, E15, E30, and E85 product can boast a CI (carbon intensity score that
18 competes with those vehicles. Ethanol (C_2H_6O) harnesses the solar energy, soil moisture, and
19 soil nutrients that go into corn production without consuming the Nitrogen, Phosphorus,
20 Potassium, and Sulfur that farmers apply to⁹ their soil since only the starch ($C_6H_{10}O_5$) in the corn
21 kernel is utilized. Most significantly, ethanol’s carbon comes from the **atmosphere** via corn
22 production; crude oil’s carbon comes from 6,000 feet below our feet ... quite a contrast. This is
23 why ethanol has a lasting future in the energy picture. The prospect of any energy source is

1 controlled by sustainability, and more recently, carbon intensity. Should we not succeed in these
2 areas, the corn belt will suffer extreme financial hardship, and so will all support industries.

3 **Q. What does Summit mean to you in terms of opportunities to grow your operation?**

4 A. I have considerable investment in two ethanol plants, but that pales alongside the millions
5 of dollars invested in farm machinery, buildings, grain bins, and other equipment dedicated to
6 corn production. The surest way to ransack the agricultural industry in South Dakota would be
7 to deny ethanol producers the ability to manufacture their product in a manner that allows them
8 to sell a fuel that the marketplace demands.

9 **Q. What context is missing from the concerns stated by others?**

10 A. South Dakotans are a conservative, independent bunch that generally feels life is best
11 with limited outside intervention. We are quick to overlook the vast infrastructure that others
12 have made possible via their sacrifice ... namely, the electrical distribution network, interstate
13 highways, buried natural gas, crude oil, petroleum, fertilizer, rural water pipelines, internet lines,
14 and telephone lines. There are considerable benefits to all when we allow such infrastructure to
15 improve our lives.

16 **Q. What fears do you have if the project is not completed?**

17 A. Farmers watch the commodity markets daily, and when a report indicates even a two
18 percent change in demand, the market goes wild. I do not want to think about a corn market
19 where the demand can change 10, 20, or 30 percent should the ethanol product fail to meet
20 customer expectations.

21 **Q. Has your county acted against the project?**

22 A. To my knowledge, our county representatives have not acted against the pipeline.

1 **Q. How do you feel about that? How do you feel about other counties which have tried**
2 **to stop the project?**

3 A. For many years, I and other South Dakotans have been “climate change deniers”. We
4 have gotten along just fine in the wide-open spaces of our state. The time has come, however, to
5 recognize that there is a “cause and effect” relationship when we continue to add, now over 1/3,
6 to the carbon dioxide levels in our atmosphere. Fortunately, corn growers and ethanol plants
7 have the ability to provide some relief to that problem by modifying our ethanol manufacturing
8 methods enabling us to be part of the solution and continue to make a living producing corn.

9 **Q. Do you have safety concerns about the Summit project?**

10 A. I do not have safety concerns about the Summit project.

11 **Q. Is your ground part of the Summit project?**

12 A. My ground is not part of the Summit project.

13 **Q. Does this conclude your testimony?**

14 A. Yes.

15 Dated this 7th day of November, 2024.

16

17 /s/ Ronald Frankenstein

18 Ronald Frankenstein