

---

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

---

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

**HP22-001**

**DR. MATT LIEBMAN**

**INITIAL PRE-FILED TESTIMONY  
IN SUPPORT OF LANDOWNER  
INTERVENORS**

---

**Q: Please state your name and purpose for providing testimony in these proceedings.**

A: My name is Matt Liebman. The purpose of my testimony is to provide the PUC information helpful when considering this proposed hazardous pipeline application. My primary areas of concern are soil degradation and reduced crop yields; minimal reductions in greenhouse gas emissions should this proposed hazardous pipeline be approved; and corruption of the ideal of public sacrifice for the public good.

**Q: What experience, education, training, or background qualify you to provide opinions and your concerns as you have hearing?**

A: I am a Professor Emeritus of Agronomy at Iowa State University and the Henry A. Wallace Endowed Chair for Sustainable Agriculture. Please see a summary of my education and experience in **Attachment No. 1**, my C.V.

**Q: I ask you to assume that the four (4) main elements of proof that Summit has the sole burden to prove in these proceedings are a) that Summit will comply with all applicable laws and rules; b) that no aspect of Summit's proposed hazardous pipeline will pose a threat of serious injury to the environment, or to the social condition of current inhabitants or expected inhabitants in the siting area, or to the economic condition of current inhabitants or expected inhabitants in the siting area; c) that no aspect of Summit's proposed hazardous pipeline will substantially impair the health, safety, or welfare of the**

**inhabitants; and d) that no aspect of Summit's proposed hazardous pipeline will unduly interfere with the orderly development of the region – with special consideration given to the views and positions of the governing bodies of affected local units of government. Of these factors, which are most relevant to your opinions here?**

A: My opinions arguably touch each of these factors with the most direct relevance being that this proposed hazardous pipeline does pose a threat of serious injury to the environment and social conditions or both current and expected inhabitants in the siting area and to their economic condition for the reasons discussed below.

**Q: Based upon your research, studies, education, background, training, and experiences do you have an opinion whether or not South Dakota landowners will suffer from soil degradation and reduced crop yields?**

A: Yes, I do.

**Q: And what is that opinion?**

A: Subsoil compaction, the kind you can expect from pipeline related construction activities proposed here by Summit, reduces corn yields at least by 15% and soybean yields by 25% for at least several years after pipeline construction completion. I am also aware of evidence of reduced yields decades into the future based upon familiarity with farmers affected by pipeline constructed and put in service decades ago. I have serious concerns for any person with production agriculture land that would be affected should the Commission approve this application. It is my opinion that construction of this proposed hazardous pipeline would pose a threat of serious injury to the economic condition of persons along the proposed route in South Dakota and elsewhere. Additionally, such impacts are more likely than not going to substantially impair the welfare of the current inhabitants and unduly interfere with the orderly development of the regions affected. These opinions are my own and find support in recent peer reviewed research included here as **Attachment No. 2**.

**Q: What if I asked you to assume Summit is offering – at least if you agree to sign their Easement Agreement – to pay for some percentage of yield loss for up to**

**three (3) years – would that change the opinions you just expressed and if so, why?**

A: No, it would not. That doesn't change the scientific evidence backing my opinions. I am concerned for affected landowners that will most certainly be dealing with yield loss and therefore economic loss and damage years beyond the first three (3) following construction.

**Q: What is your next opinion you would like the Commission to consider?**

A: Capturing carbon dioxide generated during the process of fermentation at ethanol plants and then transporting it by pipelines through South Dakota and other states and storing it underground would have trivial effects on our nation's carbon dioxide emissions. Carbon dioxide emissions in the U.S. in 2020 were 110 times greater than the amount that might be captured at all our nation's ethanol plants under the most favorable projections. The use of ethanol in our cars contributes to greenhouse gas emissions, which exacerbate our ever-increasing climate crisis. Tailpipe emissions from U.S. vehicles in 2020 using gasoline blended with 10% ethanol (E10) were almost 25 times greater than the 43 million metric tons of carbon dioxide that could potentially be captured at all the nation's ethanol plants. Because vehicles using ethanol rather than regular gasoline typically get 4% to 5% fewer miles per gallon of fuel consumed, due to the lower energy content of ethanol, carbon dioxide emissions per mile traveled are as high or higher for ethanol blends as for pure gasoline.

**Q: Why do you believe that is relevant to these proceedings?**

A: Summit claims its project would allow the ethanol plants they partner with to sell their product at a premium in the growing number of states and countries that have adopted low carbon fuel standards. However, as stated above, this simply encourages greater use of a dirtier fuel which defeats Summit's stated purpose of carbon capture.

**Q: Do you have any other opinions to share with the Commission?**

A: Yes. Because the carbon dioxide transported that would be transported by Summit from ethanol plants for underground storage would hardly dent U.S. greenhouse gas emissions while incurring substantial damage to private land, I believe insufficient public benefit would accrue from allowing private pipeline projects to proceed using eminent domain. My understanding is that without an approved application by the South Dakota PUC there is no reason Summit would go through the entire condemnation process because there would be no need to obtain easements against landowners' interests.

**Q: Have you written more extensively on your opinions we discussed here?**

A: Yes, I have. **Attachment No. 3** to my testimony is a true and accurate copy of a July 29, 2022, joint article and research piece I prepared with others in opposition to these projects. I stand by the research and conclusions stated therein and incorporate those into my sworn testimony. I am competent to testify consistent with the above as necessary. I urge the PUC to carefully consider this testimony during the Hearing in this matter and in your deliberations. I further reserve the right to amend or modify these opinions upon presentation of any additional information that may justify such a change.

Dated June 15, 2023

*/s/ Matt Liebman*

Matt Liebman