

Association of Irrigated Residents

February 19, 2020

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Tier 2 Pathway Application: Application No. D0005

To Whom It May Concern,

The Association of Irrigated Residents writes in opposition to the Tier Two Pathway application #D0005 for a Carbon Capture and Sequestration project by Red Trail Energy in Richardton, North Dakota: (1) The project does not guarantee the collected CO₂ will stay in the ground permanently, (2) the project will not serve but actually delay California's goals of zero carbon transportation by 2045, (3) the calculations of carbon intensity for corn ethanol from this project overestimate the energy and GHG reduction benefits of distillers grains being fed to cattle, (4) this project inadequately addresses the dangers of CO₂ leakage to nearby residents and local groundwater, and (5) the project does not address the projects potential impacts to the original owners of the land, the Native Americans located on nearby reservations from whom this land was forcefully taken.

Red Trail Energy proposes to capture and inject CO₂ from their ethanol plant, supposedly sequestering this CO₂ permanently underground (a process known as carbon capture and sequestration or CCS). They are doing this to lower the carbon intensity of their corn ethanol which will be shipped to California for use as a transportation fuel.

This project must guarantee the CO₂ will stay in the ground permanently. A bond is necessary. There must be a guarantee to the people of California that the CO₂ will still be where they put it for at least two hundred years. This project will obviously collect money through the California LCFS program by selling carbon credits to suppliers of gasoline and diesel. The bond is necessary to ensure that repayments are available equal to what is collected from the sale of these carbon credits which is ultimately paid by California residents who purchase fossil fuel for transportation over the next several years. CARB must make this guarantee available to the people who realistically are paying the costs of this project in the event of any leakage to the atmosphere of the captured and sequestered CO₂.

Californians will soon be driving electric vehicles exclusively. What is the projected life of this project given that current goal in California? Corn ethanol is not a fuel of the future since there will never be enough of it to fuel more than a fraction of California's vehicles and must be mixed with fossil fuels like gasoline in order to be useful. By 2045 all vehicles in California should be running off of either renewable electricity or renewable hydrogen. By 2040, at the latest, there should be no need for California to import corn-based ethanol. What plans are in place for shutting down this project at that time while providing for the need to monitor the injected CO₂ for many decades into the future? Also, to what extent will this project delay the implementation of electric, zero-carbon fueled vehicles in California?

The energy credit from distiller grains (DDGS or MDGS) is not totally valid in the pathway calculations. When distiller grains are fed to cattle there are associated methane emissions, both enteric and from the resulting manure. These emissions must be included in the Life Cycle Assessment for the carbon

intensity of the project's corn ethanol. The project cannot count negative carbon emissions from CCS while not counting the actual emissions of methane from the cattle, chicken or hog operations that consume the distillers grain.

There must be an acknowledgement of and valid response to the danger of escaping CO₂ from all stages of this project and the potential loss of life, both human and ecological. A cloud of CO₂, under the right atmospheric conditions, can smother or suffocate all forms of life within the cloud's pathway. This has happened elsewhere. This type of event was most devastating at Lake Nyos in Cameroon in 1986 where hundreds of people and thousands of cattle died almost immediately when CO₂ escaped from the lake. There must be a second bond guaranteeing adequate payments for such a disaster in the adjacent town of Richardton where more than 500 residents live within a mile of the collection point for this CO₂ and less than three miles from the injection point. Because of this there must be a bond or insurance in the amount of at least \$5 billion dollars in case of a catastrophic leak event where hundreds of local residents may lose their lives. This bond or insurance must be maintained for at least one hundred years after closure of the project.

What procedures and policies will be in place to protect travelers on I-94 from exposure to a large CO₂ leak? The injection site appears to be ¼ mile from this interstate highway.

The threat this project poses to local groundwater must also be acknowledged and protected against. Many years after this project has ended there may still be a threat of CO₂ contamination of local groundwater supplies. What guarantees are there that the damages from this type of event will be covered by the owners of the project?

Are there any Native American groups which have a claim to the land where this project is located? If they exist, what are the circumstances of these claims? How are they being informed about the project and how are their concerns being addressed? Have native Americans in North Dakota, including from tribes and reservations within 100 miles of Richardton, received full voting rights and protections to ensure their participation in local politics? There has been controversy about this topic in North Dakota according to news reports in the past couple years.

The engineers for the project have done a geologic survey of 8 square miles. That is a radius from the injection site of 1.6 miles. What guarantee is there that the injected CO₂ plume will stay within 1.6 miles in the underground zones? Can the plume of CO₂ disperse to any of the area underlying the town of Richardton, a distance of less than three miles? Earthquakes in the region are not common but have happened in the past. Fractures can exist almost anywhere. How do the geologists know for a fact that the so-called rock layer caps containing the CO₂ extend with full integrity well beyond this 1.6 mile radius?

Sincerely,

Tom Frantz

President, Association of Irrigated Residents