

**STATE OF IOWA
IOWA UTILITIES BOARD**

IN RE:

DOCKET NO. HLP-2021-0001

SUMMIT CARBON SOLUTIONS, LLC

**REBUTTAL TESTIMONY OF
JAMES PIROLI
ON BEHALF OF
SUMMIT CARBON SOLUTIONS, LLC**

AUGUST 21, 2023

1 **Q. ARE YOU THE SAME JAMES PIROLI WHO FILED DIRECT TESTIMONY**
2 **IN THIS DOCKET ON MAY 25, 2023?**

3 A. Yes.

4 **Q. WHAT IS THE PURPOSE OF YOUR REPLY TESTIMONY?**

5 A. I am replying to issues raised in objections in the docket questioning the benefits of the
6 project, including those suggested by the Exhibit H Staff Report, which notes in its
7 classes of objections that questions have been raised about efficacy, monetary issues, and
8 public interest or benefits. I am also replying in part to issues raised by many witnesses
9 for the Jorde Landowners questioning the impact this project will have – or the absence
10 of the project would have – on the ethanol economy in Iowa. Finally, I am responding to
11 concerns by some of those same landowners regarding insurance.

12 **Q. BROADLY SPEAKING, WHAT ARE THE BENEFITS OF THE SUMMIT**
13 **PROJECT TO PARTICIPATING ETHANOL PLANTS AND THE ETHANOL**
14 **INDUSTRY IN IOWA?**

15 A. One of the key purposes of the project is to expand and extend the duration of the market
16 for ethanol produced in Iowa and surrounding states, as demand increases for lower
17 carbon energy. By capturing carbon dioxide from the fermentation process that would
18 otherwise be released into the atmosphere and instead permanently sequestering it, we
19 help ethanol plants lower their carbon intensity score. That makes their ethanol more
20 valuable and improves the demand for ethanol in low-carbon fuel standard (“LCFS”)
21 markets like those in the western United States and in Canada, and in other places that
22 transition to low-carbon fuels in the future.

1 **Q. CAN YOU EXPLAIN HOW THAT ADDITIONAL VALUE FROM IS REALIZED**
2 **FROM LCFS MARKETS?**

3 A. Yes. At present, when corn is processed into ethanol, one-third becomes fuel ethanol,
4 one-third becomes animal feed, and one-third is carbon dioxide which at present is, at
5 most plants, lost and adds no value. Our project aims to create value from that one-third
6 that is turned into carbon dioxide. Capturing and permanently sequestering that carbon
7 dioxide allows that to happen. Energy supplies in a LCFS market generate credits or
8 deficits based on a comparison of the carbon intensity of the energy that they sell to a
9 standard. Those standards continue to trend lower over time. The lower a product like
10 ethanol's carbon intensity score, the more value it adds and the higher premium buyers
11 will pay for it. At present, the average carbon intensity score for ethanol produced in
12 Iowa is around 70. The Summit project will reduce that score by about 35 points –
13 roughly 50%.

14 **Q. IS THAT THE ONLY BENEFIT TO THE ETHANOL PLANTS?**

15 A. No. There are also tax incentives and other carbon credits that can be monetized, and
16 ethanol plants will also share in those revenues. Broadly speaking, both the ethanol
17 produced by the plants and the carbon dioxide captured from those plants will represent
18 potential new revenue streams or sources when Summit captures, transports and stores
19 the carbon dioxide. Those new revenues, after operating costs, will be shared between
20 Summit and the participating plants.

21 **Q. CAN YOU PROVIDE SOME ADDITIONAL DETAIL ON THE TAX**
22 **INCENTIVES?**

23 A. Yes, although I am not a tax attorney, I have a working familiarity with the programs.
24 The primary programs at issue here are known as 45Q and 45Z. There are a couple of

1 important points I want to make about those programs. First, those credits are not cash up
2 front – those are credits based on results, either tons of sequestered carbon for 45Q or
3 gallons of reduced-carbon ethanol produced for 45Z. The revenue from the tax programs
4 would only begin once the project is up and running, capturing carbon. Second, several
5 objectors suggest there is something negative about the fact that the project will receive
6 tax credits. I disagree: the tax credits are part of an intentional, bipartisan federal policy
7 meant to encourage projects that will capture and sequester carbon dioxide. The Summit
8 project is an example of the federal policy working as it is supposed to – facilitating
9 investment in carbon capture infrastructure and technology by providing a reward for
10 successful application of those technologies. Again, the federal tax credits are a future
11 incentive based on a future result.

12 When we talk about taxes, however, it is also important that Summit will pay
13 more than \$30 million per year in new property taxes in Iowa, approximately \$1 million
14 per year per county that Summit crosses.

15 **Q. DO YOU HAVE AN ESTIMATE OF HOW MUCH OF A BENEFIT THIS WILL**
16 **BE TO IOWA'S ETHANOL PLANTS?**

17 A. There are a lot of variables, but based on my twenty years of experience in agricultural
18 markets and trading, much of that with ethanol companies or companies with ethanol
19 operations, some of which included carbon capture, as well as my studies of the LCFS
20 markets, I believe a participating ethanol plant will earn, on a net basis, an additional 10-
21 to-35 cents per gallon.

22

1 **Q. DOES THAT BENEFIT HAVE IMPACTS BEYOND THE ETHANOL PLANT**
2 **ITSELF?**

3 A. Absolutely. Preserving a market for ethanol by extension preserves a market for corn
4 since roughly 53% of Iowa's corn is sold to ethanol producers. A robust market for corn
5 keeps corn prices higher. And higher, more consistent revenue per acre helps support a
6 higher land price for Iowa farmland.

7 **Q. ARE YOU AWARE OF ANY STUDIES THAT WOULD SUPPORT THAT**
8 **CONCLUSION?**

9 A. I am. The Iowa Renewable Fuels Association released a study earlier this year that
10 conducts an economic analysis of the impact of carbon capture and storage (or the lack
11 thereof) in the future on the ethanol and corn industries in Iowa. That study is filed with
12 this testimony as Summit Pirolli Reply Exhibit 1.

13 **Q. IS USE OF THE SUMMIT PIPELINE LIMITED TO ONLY ETHANOL**
14 **PRODUCERS?**

15 A. No. Anyone who can provide carbon dioxide that meets the specifications for transport –
16 mainly that it is sufficiently pure and free of other compounds – can enter a transportation
17 services agreement. In my role as Chief Commercial Officer, I've spoken to any number
18 of industries who could benefit from working with Summit to manage and transport their
19 carbon dioxide output. While ethanol production produces particularly pure carbon
20 dioxide, processes like fertilizer production also generate carbon dioxide that can be
21 readily captured (which would further lower the carbon intensity of midwestern
22 agriculture generally.)

23 **Q. SUMMIT PRESENTLY HAS 13 ETHANOL PLANTS IN IOWA SIGNED UP TO**
24 **PARTICIPATE IN THE PROJECT, CORRECT?**

25 A. That is correct.

1 **Q. THAT NUMBER HAS INCREASED JUST SINCE YOUR DIRECT TESTIMONY?**

2 A. It has. We have signed up the Absolute Energy facility in St. Ansgar, Iowa.

3 **Q. AMONG THOSE 13 PLANTS, ARE THERE PLANTS WHOSE CARBON**
4 **DIOXIDE WILL BE SHIPPED THROUGH THE SUMMIT PIPELINE THAT ARE**
5 **NOT RELATED TO SUMMIT CARBON SOLUTIONS?**

6 A. None of the 13 plants are related to or under common controlling ownership with Summit
7 Carbon Solutions.

8 **Q. HOW DOES SUMMIT MARKET THE SERVICES IT PROVIDES?**

9 A. This is actually a large part of my role at the company. At this point, the project is well
10 known through trade and general press, and we have the usual tools like our website. But
11 I have also spent the last couple of years meeting with ethanol plants and other
12 manufacturing facilities that produce carbon dioxide, and we actively hold ourselves out
13 as willing to carry carbon dioxide for anyone who is able to provide carbon dioxide in
14 line with specifications and who is interested in our standard contract. Moreover, we will
15 be conducting what is known as an open season to solicit interested shippers, and that we
16 will be reserving 10% of the pipeline capacity for “walk up” shippers – those who are not
17 shipping pursuant to a long-term commitment.

18 **Q. SOME OF THE JORDE LANDOWNERS RAISE CONCERNS ABOUT THE**
19 **ABILITY TO OBTAIN INSURANCE. DO YOU HAVE A RESPONSE TO THAT?**

20 A. I do, and it is from personal experience. My family’s land in Iowa has a pipeline running
21 across it, and we have never had any issue obtaining insurance. Looking at some of the
22 letters from insurance agents that were filed with landowner testimony, what I believe
23 many of those are saying is simply that they wouldn’t cover the easement for damages
24 from the pipeline because those damages would be covered by Summit or Summit’s

1 insurer. And ultimately that is the answer: while my experience and my belief is that
2 landowners will be able to get insurance, Summit will be, in effect, the insurer for
3 damages related to the pipeline. Our voluntary easement agreement has a provision
4 where Summit indemnifies the landowner. We are amenable if the Board wants to put
5 that language in the order as part of the condemnation easement terms and conditions so
6 it will cover all of our easement in Iowa regardless of how it was obtained.

7 **Q. DOES THIS CONCLUDE YOUR REPLY TESTIMONY?**

8 A. It concludes my prefiled reply.