

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

IN THE MATTER OF THE APPLICATION
OF SCS CARBON TRANSPORT LLC FOR
AN ENERGY FACILITY PERMIT TO
CONSTRUCT THE SUMMIT CARBON
SOLUTIONS PIPELINE

**DIRECT TESTIMONY OF
JAMES POWELL**

ON BEHALF OF

SCS CARBON TRANSPORT LLC

SCS CARBON TRANSPORT LLC EXHIBIT #

February 7, 2022

Q. Please state your name, present position, and business address.

A. My name is James Powell and I'm the Chief Operating Officer for Summit Carbon Solutions ("Summit"), parent company of the Applicant, SCS Carbon Transport LLC, in this proceeding. Both companies are located at 2321 North Loop Drive, Suite 221, Ames, Iowa 50010.

Q. Please describe your educational and professional background.

A. I received a Bachelor of Science in Engineering from Oklahoma State University. My professional experience has predominantly focused on the design, construction, and operation of energy related infrastructure projects both in the U.S. and internationally.

Prior to Summit Carbon Solutions, I worked for Kinder Morgan where I served as both Vice President (VP) of Projects and Engineering, and VP of Operations. As VP of Projects and Engineering, my responsibilities included the development and execution of capital projects from concept to operation. As VP of Operations, my responsibilities included the safe and reliable operation of Kinder Morgan's liquid pipeline network (~10,000 miles) and associated facilities throughout the continental U.S. and southern Canada.

Prior to Kinder Morgan, I worked for Hiland Partners where I served as Executive VP (EVP) and Chief Operating Officer (COO). As EVP and COO, my responsibilities included leading the projects, engineering, and operations organizations to execute capital projects and ensure the safe and reliable operation of Hiland's energy infrastructure assets.

Prior to Hiland Partners, I worked for BP in various project management roles leading the execution of major capital projects in the continental U.S., Alaska, Brazil, and the Middle East.

Q. Please describe your duties with Summit Carbon.

A. For Summit Carbon Solutions, I'm responsible for the technical development, execution, commissioning, and start-up of Summit's Carbon Capture, Storage, and Sequestration (CCSS) project (the "Project"). SCS Carbon Transport LLC will build the pipeline facilities in South Dakota that are a part of the larger CCSS Project. This includes the day-to-day management of experts and technical professionals to execute the Project from concept through design, construction and ultimately commissioning and handover to operations. Post start-up, my responsibilities will transition to the safe and reliable operation of the Project assets.

Q. Have you previously submitted or prepared testimony in this proceeding in South Dakota?

A. No

Q. What is the purpose of your direct testimony?

A. I am testifying in support of SCS Carbon Transport's request for a permit pursuant to the Energy Conversion and Transmission Facility Act authorizing it to construct, install, operate, and maintain the South Dakota portion of the Project which is comprised of approximately 469.1 miles of 4" through 24" nominal diameter pipeline, 4 pipeline pump stations, that collect CO₂ from 7 ethanol plants in South Dakota and transport the CO₂ to the SD/ND border.

My testimony will include (i) a description of the corporate organization of Summit; and (ii) Summit's request for authority to construct the Project under SDCL 49-41 B and ARSD 20:10:22 which includes, without limitation the purpose of the facility, the estimated cost of the facility, demand for the facility, and to provide general information regarding the proposed site and the process underpinning selection of the site. In addition, I will testify regarding the potential impact this facility will have on the state and communities through which it passes.

Q. Can you provide a description of the corporate organization of Summit Carbon Solutions and its affiliates?

A. The applicant is SCS Carbon Transport LLC, which is a wholly owned subsidiary of Summit Carbon Solutions, LLC and a Delaware limited liability company with its principal office at 2321 North Loop, Suite 221, Ames, Iowa 50010. The entire membership interest in SCS Carbon Transport LLC is owned by Summit Carbon Solutions, LLC.

Q. Will the pipeline be operated and/or managed by Summit Carbon Solutions, LLC?

A. The proposed Project will be owned and operated by SCS Carbon Transport LLC. The Project will rely on Summit Carbon Solution's infrastructure that includes accounting systems, operational control center, operating integrity program, and operating policies and procedures.

Q. Please give us an overview of the planned operations control center.

A. A state-of-the-art pipeline Operations Control Center ("OCC") will be located in Ames, Iowa. The OCC will employ experienced and trained staff who will continuously monitor and control pipeline operations. A Supervisory Control and Data Acquisition ("SCADA") system will be responsible for communicating with all field sites and providing up to the minute status from every facility and data collection point along the pipeline.

Q. Will the operations control center be operated 24/7?

A. Yes.

Q. What kind of data will be collected and transmitted to the operations control center?

A. The SCADA system will be utilized to continuously monitor sensing devices located at strategic points along the pipeline to collect data that will allow the Applicant to trend pressure and flow of CO₂ under transport. This data collection will be utilized to ensure the pipeline operation is maintained within established operating parameters. OCC personnel have the capability to

remotely shut down pump stations and isolate pipeline segments in the event abnormal operating conditions are observed.

A Real Time Transient Model (“RTTM”) leak detection system will be deployed. The RTTM is a real time hydraulic model of the pipeline that runs alongside the actual pipeline. When the behavior of the pipeline does not match the hydraulic model, it indicates an issue that must be addressed. In the case of sudden changes in operating pressure, alarms will sound to indicate that a leak profile has been detected.

Q. Will operating procedures be established to govern the operation and control of the pipeline through the operations control center?

A. Yes, operating procedures will be developed and used to direct the OCC operator’s actions and responses in both normal and abnormal operating conditions.

Q. In addition to remote monitoring and control of the pipeline’s operations through the operation’s control center, will local operation of the pipeline be possible?

A. Yes, in addition to remote control operations, local automated control and manual overrides will be in place to control or operate the pipeline system should remote communications fail. Operations personnel will be located in close proximity to remote operated facilities and will be trained to respond to abnormal conditions. In the event the pipeline cannot be safely operated manually, the pipeline system will be shut down until satisfactory operations can be re-established.

Q. Please describe the procedures that will be employed for periodic inspections, surveillance, and maintenance of the facilities.

A. During installation and pre-commissioning, the pipeline system will be subjected to rigorous inspection and testing to confirm mechanical integrity and compliance with regulatory requirements. Inspection will include inspection of 100% of field welds (exceeding the regulatory requirement of 10%); testing the integrity of pipe coating; and hydrostatically testing the pipeline.

Maintenance procedures will be developed that will include regular inspection and surveillance of the pipeline and appurtenances in accordance with requirements set forth in the Pipeline and hazardous Material Safety Administration (PHMSA), 49 CFR Part 195.

The pipeline right-of-way (ROW) will be patrolled and visually inspected every 2 weeks, weather permitting, and not less than 26 times annually. Aerial surveillance will check for abnormal conditions, stressed or damaged vegetation, or dangerous activity (unauthorized excavation, unauthorized construction, etc.).

Q. Will maintenance and emergency response personnel be stationed along the route of the pipeline?

A. Yes, personnel trained in maintenance and emergency response procedures will be strategically located along the pipeline system.

Q. Where will the emergency response equipment be located?

A. Since a release of CO₂ would not involve overland flow, emergency response (spill response) equipment will not be required.

Q. Where will the personnel who are trained in emergencies responses be located?

A. All personnel located in the field along the pipeline system will be trained in emergency response.

Q. Will an emergency response plan be prepared?

A. Yes, an emergency response plan, as required by federal regulations 49 CFR 195 and approved by PHMSA, will be developed and in place prior to placing the pipeline system into operation. In addition, operations personnel will coordinate with local emergency responders and local authorities to conduct training and emergency response drills to ensure preparedness.

Q. Please give us an overview of the proposed pipeline.

A. The overall proposed Project is approximately 2,000 miles long ranging in size from 4” to 24” nominal diameter. The Project will connect approximately 31 ethanol plants located in Iowa, Minnesota, Nebraska, South Dakota, and North Dakota to a newly constructed storage and sequestration site spanning sections of Oliver and Mercer counties, North Dakota. The pipeline network is proposed to transport approximately 9 million metric tons per annum (MMTPA) of CO₂ initially, with an anticipated capacity of 12 MMTPA or more. The Project’s purpose is to capture CO₂ from the fermentation process at each ethanol facility and compress the CO₂ to a super critical state for transportation via pipeline to the storage and sequestration location in North Dakota. Capturing CO₂ ultimately prevents CO₂ from being emitted into the atmosphere enabling a reduction in an ethanol plants carbon intensity score which increases the value of the ethanol produced in low carbon fuel supply (LCFS) markets. Approximately 469.1 miles of the 1,927-mile pipeline network will be constructed within South Dakota.

Q. What is the estimated cost of the facility?

A. The cost of constructing the entire pipeline network, 31 capture and compression facilities, and the sequestration and storage facilities is approximately \$4.5 billion. Construction of the 469.1 miles of pipeline and facilities within South Dakota is \$785 million.

Q. Can you describe for us the demand for the facility?

A. Demand for the facility comes from a need for existing ethanol plants in the upper Midwest to secure competitive access to low carbon fuel standard markets predominantly found on the west coast of the United States. Sequestering carbon dioxide from these participating ethanol plants lowers their Carbon Intensity (CI) scores applied by the marketplace and raises the return to the ethanol plants accordingly. By doing so, the project secures ethanol’s place in the agricultural markets in the upper Midwest and secures corn prices and land prices by doing so.

Summit has secured binding long-term offtake agreements with 31 ethanol plants who, in aggregate, have approximately 9 MMTPA of CO₂ to support development of the Project.

Q. Where in South Dakota is the pipeline expected to be developed?

A. The mainline enters South Dakota from Iowa in Lincoln County and traverses approximately 20 counties ultimately exiting South Dakota in McPherson county. The Project includes 4 pump stations located in McPherson, Spink, Kingsbury, and Minnehaha counties, South Dakota.

Additionally, SCS Carbon Transport LLC will construct aboveground appurtenances including approximately 16 mainline valves, (MLVs) and 9 pig launcher and receiver (L/R) facilities.

Temporary contractor staging yards will also be required for the project. Table 3 provides the land requirements for the project.

Table 3: Land Requirements for the Project (Acres)		
FACILITY	CONSTRUCTION ¹	OPERATIONS ²
Pipelines	5,800.1	2,838.5
Pump Stations	19.5	19.5
MLVs	0.9	0.9
Launcher-Receivers	2.6	2.6
Contractor Yards	207.1	0.00
Laydown Yards	86.3	0.00
Access Roads	17.8	4.9
ATWS	416.1	0.00
TOTAL	6,550.4	2,866.4
Notes:		
¹ Acreage for construction includes both construction (temporary) and operations (permanent) footprint.		
² Acreage for operations includes only permanent footprint.		

Construction of the new pipeline will require a typical construction ROW width of approximately 110 feet in uplands, 100 feet in non-forested wetlands, 85 feet in forested areas (wetlands and

uplands), and up to 110 feet in agricultural areas. Following construction, a 50-foot wide permanent easement will be retained along the pipeline. Where necessary, Summit will utilize additional temporary workspace (ATWS) outside of the construction ROW to facilitate specialized construction procedures such as horizontal directional drills (HDDs); railroad, road, wetland, waterbody, and foreign utility line crossings; tie-ins with existing pipeline facilities; areas with steep side slopes; and pipeline crossovers. These ATWS will be allowed to revert to pre-existing conditions following construction activities, so there will be no permanent impact on these areas.

Summit will utilize existing public and private roads to access the pipeline ROW and aboveground facilities to the extent practicable. Existing roads will include paved, gravel, pasture roads, and other conveyances. Some roads may require modification or improvement to facilitate safe access for construction equipment and personnel. The Project pipeline may require construction of new temporary and permanent roads to provide access to the new pipeline both during construction and to accommodate future pipeline maintenance activities. Access roads have not been thoroughly defined during this early design phase. Summit will seek and enter road use agreements with all affected units of government.

Q. How was the site for the pipeline selected?

A. Summit Carbon Solutions, LLC, and therefore, SCS Carbon Transport LLC, utilized a sophisticated and proprietary Geographic Information System (GIS) based routing program to determine the preferred pipeline route based on multiple publicly available and purchased datasets. Datasets utilized during routing analysis included engineering (e.g., existing pipelines, railroads, karst, power lines, etc.), environmental (e.g., critical habitat, fault lines, state parks, national forests, brownfields, national registry of historic places, etc.), and land (e.g., dams, airports, cemeteries, schools, mining, military installations, etc.). Each of these datasets were weighted based on the desire to co-locate with certain features and the risk of crossing, and/or desire to avoid high risk areas while minimizing the overall length of the route. For example, the existing pipeline dataset

was assigned the lowest risk, so the routing tool followed existing pipeline infrastructure to the extent possible. An example of a high-risk feature is the national parks dataset; therefore, the GIS routing program excluded any national parks from the preferred pipeline route to avoid impacts to federal lands.

The baseline centerline route derived from the GIS routing analysis was completed during the screening or fatal flaw phase of the project and served as the basis for further investigation. As the design phase matured, coordination with state agencies advanced, survey data collection commenced, landowners were engaged, and additional datasets were collected. This additional information was utilized to optimize the pipeline route.

The proposed pipeline route has been modified in numerous locations to minimize constructability risks and avoid HCAs, U.S. Fish & Wildlife Service (USFWS) easements, environmental features such as wetlands and waterbodies, cultural resource sites, incompatible land uses, home/farm sites, buildings, irrigation systems, power poles/towers, trees planted or windbreaks, and property corners. Route modifications were evaluated via a process that included actual site visits, existing datasets, and air reconnaissance as warranted.

Q. How are route modifications categorized?

A. There are three primary categories of route modifications: realignments, minor reroutes, and major reroutes. Realignments are small changes in the pipeline route resulting in a change in centerline location of 150 feet or less. Realignments are fully within the 300-foot environmental/cultural corridor and do not require additional survey efforts. To date, there have been realignments along most of the route to square up road crossings, straighten the route where possible, shift to property line edges, and adjust spacing with collocated or crossed utilities. Minor reroutes are changes in the pipeline route of greater than 150 feet from the original centerline and may require additional environmental/cultural survey. Minor reroutes typically do not impact new landowners. There has been a total of 121 minor reroutes constituting a total length of 77.1 miles. Major reroutes are more

extensive and may extend many miles and impact multiple new landowners. Major reroutes typically require additional environmental/cultural survey. To date, there have been 11 major reroutes constituting 44.9 miles. All route changes have and will continue to be managed utilizing a rigorous and cross-discipline change management process.

Q. How would you describe your assessment of the proposed route?

A. The current route meets the objectives of the Project while minimizing risks to the health and safety of the public and minimizing potential impacts to the environment. Additional route modifications are expected throughout permitting and ROW acquisition to further reduce environmental impacts, landowner concerns, and land use conflicts.

Q. Have you assessed the potential impact of the facility on the communities?

A. The South Dakota portion of the pipeline will be 469.1 miles long and is expected to cost \$785 million. Of that amount, about 25%, or an estimated \$200 million, will be spent on labor over the construction period.

Once the Project has been built, the estimated yearly operations and maintenance spending will add approximately 25 and 30 permanent jobs with an associated \$2 to 3 million in labor income to the South Dakota economy. The increased economic activity that results during construction of the pipeline will generate an estimated additional sales, use, gross receipts, and lodging taxes of \$23 million for state government, plus \$5 million for local governments.

During the first full year of operation the pipeline will generate an estimated \$10 million in new property taxes for local governments.

Q. What are the expected impacts on the commercial and industrial sectors?

A. It's anticipated that local economies will benefit from temporary hiring of local employees and from the influx of non-local construction workers. Economic benefits to local businesses are anticipated to increase through the sale of food, lodging, goods and services, fuel, and other

consumables to the temporary non-local workforce. SCS Carbon Transport LLC also anticipates the purchase of goods, including construction materials and other supplies, from local businesses. Local purchases for construction may include consumables, fuel, maintenance services, equipment rental, office space rental/leasing, and medical needs.

Q. What is the expected impact to the housing market?

A. It's anticipated that non-local Project labor will use temporary housing such as rental units, hotels, motels, campgrounds, and recreational vehicle parks. During construction, it's anticipated that approximately 1,750 construction personnel will be in South Dakota. It's anticipated that most of the temporary workforce will seek housing in the more populated, service-oriented towns located within a reasonable commuting distance to the work site.

Q. Will the project use local labor?

A. It is anticipated that 25 to 30 permanent employees will be hired in South Dakota.

It is anticipated that approximately 1,750 construction personnel (Summit employees, construction contractor employees, construction inspection staff, environmental inspection staff, and safety coordination staff) will be on site to facilitate pipeline and facility construction. The current construction plan includes 3 pipeline construction spreads and 4 facility construction crews in South Dakota in 2023 and 2024. In aggregate, construction staffing will expend approximately 3,500,000 man-hours and generate approximately \$200 million in labor income. Summit expects that construction contractors will hire temporary construction personnel from local communities when possible. The net economic effect on local communities should be positive for the duration of the construction period.

Q. What do you anticipate the impacts will be to health facilities?

A. Summit will provide onsite medical treatment resources which will be supplemented by local healthcare facilities as needed during the duration of construction. Summit's onsite resources

should limit utilization of local health facilities during the temporary influx of non-local construction workers. Due to the limited number of permanent employees required for operation, no effect on health services and facilities are anticipated during post construction operation.

Q. What will be the impact on local energy facilities?

A. Existing facilities (hotels, offices, etc.), temporary facilities (construction sites), and local communities should not experience any impact on their public utilities. Additionally, no significant effects from operation of the Project are anticipated.

Q. What will be the impact on local sewage and water facilities?

A. Construction of the Project will generate non-hazardous construction waste including human waste, trash, pipe banding & spacers, waste from coating products, welding rods, timber skids, cleared vegetation, stumps, rock, electrical wire, and miscellaneous construction debris. All waste, which may contain (or at any time may have contained) oil, grease, solvents, or other petroleum-based products will be segregated for handling and disposal in accordance with federal and state regulations. Porta potties are used at the contractor yards and hook-ups with local sewage facilities will not be required.

Q. Does the project anticipate impacts to solid waste management facilities?

A. All trash will be removed from the construction sites (ROW and facility locations) daily unless otherwise approved or directed by Summit. Minor vegetation, rock, and other natural debris will be removed from the construction sites prior to final site reclamation. Trash and waste will be removed from each construction site when work is completed at a particular location. All waste materials will be disposed of at licensed waste disposal facilities.

All drill cuttings and drilling mud will be disposed of at an approved location. Disposal options may include spreading over the construction ROW, hauling to an approved and licensed landfill, or other sites approved by Summit and in accordance with applicable regulations. Human waste

will be disposed of exclusively by means of portable self-contained toilets. Waste from these units will be collected by a licensed contractor for disposal only at a licensed and approved facilities.

Significant impacts to solid waste management are not anticipated during construction or while in operation.

Q. What are the expected impacts from construction and operation to fire protection and law enforcement?

A. Impacts from construction to 1st responders (fire and law enforcement) are expected to be low. Summit will develop response plans for fire, spills, and incidents that may occur during construction and ensure 1st responders are advised and trained if necessary. Impacts from operations to 1st responders (fire and law enforcement) will be addressed by following the federal regulations governing the transportation of carbon dioxide via pipeline. 49 CFR 195 requires pipeline operators to develop Emergency response plans and develop 1st responder education classes before operation that will ensure all potentially affected 1st responders are aware of the hazards of CO₂ incidents. Law enforcement agencies in the communities adjacent to the pipeline should not experience a significant impact from construction personnel. All employees and contractors must comply with all federal, state, and local laws. If infractions occur, all employees and contractors will be subject to discipline up to and including termination.

Summit Carbon Solutions, LLC will develop emergency response plans that will incorporate input from local first responders (law enforcement, fire departments, and emergency medical services) and Local Emergency Planning Committees. Should an incident occur, Summit Carbon Solutions, LLC will utilize employees and contractors as emergency responders in the initial response effort. Summit will be consistent with industry best practice and comply with applicable regulations with respect to incident response methods and personnel.

In the unlikely event of an incident, the role of local emergency responders may be limited to notifying members of the community, directing traffic and people away from the impacted area,

and coordinating potential community impacts such as road closures. Local emergency responders are typically trained and capable of the roles described above without additional training or specialized equipment. SCS Carbon Transport LLC will proactively work with emergency response agencies to provide pipeline and facility awareness education and support. Summit will implement a comprehensive public awareness program, consistent with accepted standards established for pipeline and facility operations in the U.S. U.S. U.S. This program will commence in advance of the Project in-service date (estimated as June 2024). The public awareness program is intended to inform members of the public in the vicinity of the pipeline and facilities to protect the public from injury, prevent or mitigate effects on the environment, protect the pipeline and facility assets from damage by the public and provide ongoing public awareness.

Q. What will be the expected impacts to recreation from construction and operation?

A. South Dakota has extensive recreational opportunities including fishing, hunting, boating, hiking, camping, and biking. The most heavily used recreational areas occur where public access exists. The Project does not cross any federal or state-owned wildlife lands; however, access may be temporarily limited during construction where the pipeline crosses a road or access point. In addition, hunting opportunities may be temporarily limited in the vicinity of construction activity. No limitations associated with the normal operation of the pipeline and facilities are anticipated. No impacts or limited access to fishing or boating areas are anticipated during construction or operation of the pipeline and facilities.

Q. Please describe for us the expected effect on transportation in the areas of construction and operation?

A. Transportation routes anticipated for use during construction will be established through consultation with state and local highway agencies to the extent necessary. Those consultations will continue throughout construction. Summit expects to enter into Road Use agreements with all

affected state and local highway agencies. Summit will seek to have the Commission establish a road bond in accordance with SDCL 49-41B-38.

The Department of Commerce and Regulation, Division of Highway Patrol, which has jurisdiction over the federal and state highway system in South Dakota, is responsible for issuing transportation-related permits to accommodate construction vehicles and traffic. Summit intends to work with the Division of Highway Patrol to secure required permits.

During construction, traffic on highways and secondary roads will increase. Hauling of materials and equipment will be within state road and bridge weight limits. There may be isolated hauling of material and equipment that may require special permits for weight and/or width. The primary impact will be deterioration of gravel or stone surface roads requiring grading and/or replenishment of the surface materials. Summit will be responsible for repairing damage to roads, restoring them to their pre-construction condition and/or as required to comply with agreements with affected agencies.

Q. What kind of programs and procedures will be implemented to support public awareness and public safety?

A. Summit will conduct public education outreach programs, including damage prevention programs, that meet or exceed industry (American Petroleum Institute Recommended Practice 1162) and regulatory (49 CFR 195.440) requirements concerning public awareness of pipelines and pipeline safety matters.

Q. Will signage be installed to alert the public to the location of the pipeline?

A. Yes, the pipeline will be marked with signage and warnings at road and highway crossings, navigable water ways, and other locations pursuant to federal regulations. This signage is intended to alert the public to the presence of an underground pipeline and to provide service information, contact information, and emergency data.

Q. Will SCS Carbon Transport LLC utilize the one-call system?

A. Yes, SCS Carbon Transport LLC will utilize the 811 one-call system, which is a nationally recognized system to prevent third party damage to underground facilities. Prior to any excavation, individuals and contractors are required to call the 811 one-call center to provide information specific to the area of planned excavation. Upon notification, SCS Carbon Transport LLC will dispatch damage prevention personnel mark the location of the pipeline and determine whether on-site oversight is required.

Q. Please describe for us your expectations in terms of taxes due the state and local governments?

A. The project intends to pay its fair share of taxes as any other pipeline does. It is anticipated the Project will have a temporary positive impact on state sales and use tax during Project construction from the purchases of materials, equipment, supplies, and services by temporary construction employees of the Project. City sales tax will also be applicable on purchases made or deliveries received within a city that has a city sales tax. The city tax is in addition to the state sales tax and is typically 1-2%.

The state imposes a 1.5% tourism tax on lodging, amusement, entertainment, and other tourism related businesses. It is anticipated the Project will generate additional tourism revenues in locations utilized by the non-local construction work force.

Contractors providing Project construction work or operational repairs are required to have a South Dakota contractor's tax license. The excise tax imposed on the gross receipts for construction Projects is 2%.

It is anticipated that there will be a positive impact on property taxes during operations. Pipelines are centrally assessed by the South Dakota Department of Revenue (SDDOR). SCS Carbon Transport LLC will annually submit a report to the SDDOR that states the location of property by

county, township, and school district. The SDDOR will certify the taxable value to the counties where the facility property is located. Those counties will then apply their mill levies and the project will pay those property taxes. It's important to note that SCS Carbon Transport LLC doesn't determine the taxes it pays, nor does the PUC; the taxing entities do.

The increased economic activity that occurs during construction of the pipeline will generate additional corporate income, sales, property, excise, and other taxes of approximately \$23 million for state government, and approximately \$5 million for local governments. During the first year of operation, the pipeline will generate approximately \$10 million in new property taxes for local governments.

Q. Can you describe for us the forecast of the pipeline's impact on agriculture?

A. Clearing vegetation from the ROW will temporarily impact pastureland and rangeland areas. These areas are anticipated to recover in one to three growing seasons after construction is completed. Long term or permanent impacts are only anticipated at aboveground facility locations that will be fenced and removed from current use. Rangeland may be affected during construction by restrictions on livestock movement across construction areas. Once construction is complete and the ROW restored, grazing and livestock movement over the permanent ROW may resume. Grazing practices should return to normal after vegetation is re-established, therefore permanent impacts are not anticipated.

Access to and work on pastureland and rangeland will comply with all easement agreements and applicable permits and regulations. Since the pipeline will be buried deep enough to allow continued use of the land, permanent impacts on agricultural production are not anticipated. Agricultural production on the permanent ROW will be allowed to resume after final cleanup.

Summit will restore all lands, equivalent to adjacent off-ROW lands and will provide compensation for crop loss, diminished productivity, and other damage to farmland. Reclamation and revegetation of croplands, impacted by Project construction will be in accordance with applicable easement

agreements. Land will be recontoured to pre-existing conditions as practical and disturbed structures, ditches, bridges, culverts, fences, and slopes will be restored. Measures within the ECP (**Appendix 3**) will be implemented to minimize potential impacts to agricultural areas.

The pipeline is intended to provide expanded opportunities for ethanol in distant markets. The low carbon fuel standards in place in large distant markets create the opportunities, and the project unlocks them, for ethanol producers in the five-state area. Doing so supports corn prices and land prices into the future in a very significant way.

Q. Will a fusion bonded epoxy coating be applied to the pipeline?

A. Yes. In addition, abrasion resistant overcoat (ARO) coating will be applied over the fusion epoxy coating on piping used in horizontal directional drills (HDDs).

Q. Please describe the fusion bonded epoxy coating that will be applied and its purpose.

A. Fusion Bonded Epoxy (FBE) coating consists of resin and hardener components in a powder form. When the powder is sprayed onto the heated pipe surface, the powder components combine to form a bond to the steel surface and provide a coating barrier between the steel pipe and corrosive environments. This barrier helps to protect the pipeline in corrosive environments.

Q. Will a cathodic protection system be installed on the pipeline?

A. Yes.

Q. Please describe your thoughts on pipeline decommissioning.

A. If decommissioned, the pipeline will be decommissioned in accordance with state and federal rules in place at the time of decommissioning.

Q. Please describe the cathodic protection system and how it works.

A. An impressed cathodic protection system consisting of multiple transformer/rectifier units and sacrificial anodes will be installed along the pipeline system. The transformer/rectifier units

convert AC current to DC current. The DC current is injected into the soil from the anode installations and flows from the anode to the pipeline surface. The interaction between the applied DC current and the corrosive current at the pipe surface coupled with the FBE coating mitigates corrosion of the pipe steel.

Q. Does this conclude your testimony?

A. Yes.

Dated this 7th Day of February, 2022.

/s/ James Powell

James Powell