

**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

DOCKET NO. HP22-001

---

**DIRECT TESTIMONY OF  
ERIK SCHOVANEK**

**ON BEHALF OF**

**SCS CARBON TRANSPORT LLC**

**SCS CARBON TRANSPORT LLC EXHIBIT #**

November 3, 2022

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

**A.** Erik Schovanec. 2321 N Loop Drive, Suite 221, Ames, IA 50010

**Q. Can you briefly describe your education and experience?**

**A.** I received my Bachelor of Science degree in Mechanical Engineering from Oklahoma State University. I have over 11 years of applicable pipeline design, construction, start-up, and operations experience for infrastructure projects in the midstream sector. I have served as a Project Engineer, Construction Manager, Engineering Manager, and Director for large and small energy projects of varying product type across both the U.S. and Canada. Prior to my current position as the Senior Director of Pipelines and Facilities for Summit Carbon Solutions, I worked for Blueknight Energy Partners, Hiland Partners, Kinder Morgan, and EPIC Midstream with primary responsibility for safe and reliable construction and operation of pipeline and pipeline facility assets.

**Q. Please describe your duties with the Project.**

**A.** As the Senior Director of Pipeline and Facilities for Summit Carbon Solutions (“Summit”), parent company of the Applicant SCS Carbon Transport LLC, I am responsible for the construction of Summit’s Midwest Carbon Express pipelines and associated facilities, including those located in South Dakota. My duties encompass, but are not limited to, the pipeline routing; surveying (e.g., environmental, cultural, and civil); constructability reviews; contractor selection and management; material and equipment logistics; quality control and assurance; environmental best management practices and reclamation; schedule; and budget.

**Q. Which sections of the application are you responsible for?**

**A.** I participated in the preparation of the following sections of the application:

- Section 1.3 – Estimated Capital Costs;
- Section 1.4 – Project Schedule;
- Section 2.0 – Project Description;
- Section 4.0 – Proposed Route and Alternative Routes
- Section 5.0 – Environmental Information and Impact on Physical Environment
- Section 7.1 – Monitoring of Impacts (Construction);
- Appendix 1 – Construction Spread Overview Map;
- Appendix 2 – Typical Aboveground Facility Layout;
- Appendix 3 – Environmental Construction Plan;
- Appendix 8 – Waterbody Crossings;
- Appendix 9 – Wetland Report;
- Appendix 10 – Threatened and Endangered Species Report;
- Appendix 12 – Unanticipated Discovery Plan.

**Q. Can you briefly describe the pipeline and associated facilities?**

**A.** In South Dakota, there will be approximately 477.31 miles of pipelines of various diameters (i.e., 4-, 6-, 8-, 12-, and 24-inch) underground consisting of smaller gathering pipelines, consolidating to medium size pipelines (trunklines), and larger mainlines. The pipelines will have a construction footprint of up to 110 feet wide during construction and reverting to a 50-foot permanent easement upon completion and restoration. The pipeline will also require the construction of numerous valve and interconnect sites, up to four pump stations, and permanent and temporary access roads along the pipeline routes. Figure 2, South Dakota Overview Map, provides a good visual summary of the

South Dakota aspects of the Project. Appendix 2, Typical Aboveground Facility Layouts, contains typical drawings for project aboveground facilities.

**Q. What is the proposed construction and operating timeline?**

**A.** SCS Carbon Transport LLC proposes to commence construction of the Project in South Dakota in the third quarter of 2023 and to complete construction in the third quarter of 2024. SCS Carbon Transport LLC proposes to place its pipeline in service by 2024.

**Q. How was the preliminary pipeline route defined?**

**A.** As you know, routing a utility, including a pipeline, is an iterative process that requires input from many stakeholders. The objective of a preliminary route is to utilize available data sources and subject matter experts to define a pipeline corridor mature enough to begin field surveys and stakeholder consultations. The first step in establishing the preliminary pipeline route was using a Geographic Information System (GIS)-based routing program to determine the preferred routes for the mainline through South Dakota and laterals to each ethanol plant. The GIS routing program inputs included publicly available and purchased datasets. The development of the preliminary route included the following inputs: engineering (e.g., existing pipelines, railroads, karst, and powerlines, etc.); environmental (e.g., critical habitat, wetlands, state parks, national forests, brownfields, national registry of historic places, etc.); and land (e.g., dams, airports, cemeteries, schools, mining, and military installations, etc.). Alternatives that were eliminated in this step, which are detailed in the Application, did not meet the purpose and need of the Project because they did not minimize overall length of the pipelines and did not minimize the distance to possible entry and exit locations for the pipeline mainlines on the border between South Dakota, Iowa, and North Dakota that are fixed by those respective state regulatory processes.

Following the GIS evaluation, a desktop analysis using a 1,500-foot corridor was conducted by subject matter experts (e.g., environmental, cultural, engineering, construction) to determine opportunities to minimize impacts. During the desktop analysis several route modifications were identified and implemented.

Initial coordination with state and federal agencies, field data collection, and landowner engagement informed the preliminary route as well. However, it is worth noting, these activities continued after the preliminary route was defined.

**Q. How have pipeline route modifications been managed?**

**A.** Summit is committed to working with communities, individual landowners, Tribes, and other stakeholders along the route to minimize impacts and risk to public safety and the environment, as well as land use conflicts. To accommodate new information and input from stakeholders, route modifications have been implemented since the development of the preliminary route using a systematic and multi-disciplinary (e.g., environmental, cultural, land, construction, engineering) process. The purpose of this process is to meet the overall purpose and need for the Project pipeline, to transport CO<sub>2</sub> from ethanol plants as efficiently as safely as possible to locations where it can be sequestered while minimizing overall Project length and minimizing impacts and risks to public safety and the natural and built environment. A number of implemented route modifications are described in Table 5 of the updated Application. Route modification have been communicated to the Commission and impacted stakeholders, when applicable.

There are three primary categories of route modification. Realignment are small modifications in the pipeline route resulting in centerline location changes of 150 feet or less. Realignment are typically on the same landowner and fully within the 300-foot environmental and cultural survey corridor. Therefore, Realignment do not require additional survey efforts.

Minor Reroutes are changes in the pipeline route of greater than 150 feet from the original centerline and may require additional environmental and cultural survey. For instance, if a cultural resource or wetland is identified along the route, avoidance may require a centerline shift outside of the 300-foot survey corridor. Minor Reroutes typically do not impact new landowners relative to the pipeline centerline; however, the shift may impact those within the ½-mile corridor requiring notice under the Commission's rules.

Major reroutes are more extensive and may extend miles laterally from the centerline and impact multiple new landowners including those within the ½-mile notice corridor. Major Reroutes require additional environmental and cultural survey. We do not anticipate any major reroutes coming.

**Q. Are regulatory permits, authorizations, and clearances required prior to beginning construct?**

**A.** Yes. In addition to the siting permit under the South Dakota Energy Conversion and Transmission Facility Act, Table 1 in the Application lists federal and state permits identified for the construction and operation of the Project within South Dakota. Applicable local regulatory agencies will be contacted prior to any excavation, construction, and improvements activities to ensure the Project pipeline complies with local ordinances. Please note Mr. Powell's previous comments regarding county moratoria and unreasonable ordinances.

**Q. Can you briefly describe the pipeline construction process?**

**A.** Yes. Once necessary regulatory permits, authorizations, and clearances are obtained, construction can begin. High strength carbon steel pipelines of varying diameters will be installed at a minimum of four feet (top of pipe) below ground surface, and will cross primarily agricultural and undeveloped lands. The Project pipelines will be constructed under roads, railroads, rivers, and other resources as required. Following construction, land will be restored to pre-construction

conditions and will remain suitable for farming, pasture, and recreation activities; however, there will be a permanent easement that will limit construction of surface structures after the system is built. Aboveground facilities required to support the operation of the pipeline system will be installed and fenced. The surface sites will be designed and constructed to the smallest practical footprint necessary to minimize the permanent surface impacts while also ensuring safe operations. Once again, the pipeline route and aboveground facilities are depicted in Figure 2 of the Application.

Prior to initiating grading or construction activities, the exact location of underground utilities by notifying the “One-Call” locate system. Qualified inspection personnel will inspect the clearing and grading activities to ensure the contractor stays within the authorized limits of disturbance.

The general construction steps are:

- Construction survey and staking;
- Clearing, grading, and site preparation;
- Topsoil segregation;
- Stringing, bending, welding, coating, and inspecting;
- Trenching and lowering in of the pipeline, or completing trenchless crossings;
- Backfilling the trench;
- Hydrostatic testing and final tie-in; and
- Cleanup, restoration, and revegetation.

**Q. How will SCS Carbon Transport LLC mitigate environmental impacts during construct?**

**A.** A significant amount of environmental work has conducted already and more will be done prior to construction. For example, the environmental surveys, environmental reports, and consultation with environmental and wildlife agencies. During construction, best management practices (“BMP”) as defined in the Environmental Construction Plan (“ECP”), Appendix 3 of the

Application, will be used to mitigate environmental impacts during construction. The ECP provides Project procedures to reduce the occurrence of off-site sedimentation and erosion and to increase the success and efficiency of revegetation and restoration methods on lands crossed by the Project. The ECP identifies generally recognized BMPs that will be implemented to minimize and mitigate impacts, particularly to wetlands, waterbodies, and agricultural areas. Mitigation measures for agricultural impacts include establishing original contours and drainage patterns after construction and other measures as described below and in Section 3.0 of the ECP. Please note that the ECP also contains typical plan and profile views of the construction right-of-way (“ROW”) for different situations found during construction and methods used for construction. For example, crossing wetlands and waterbodies.

**Q. Are there plans for the valve sites?**

**A.** Yes. SCS Carbon Transport LLC plans to construct 26 MLVs at pump stations, launcher- receiver sites, and capture facilities, as well as 25 MLVs as intermediate MLVs, all capable of remote operation. When not located at a pump station, launcher-receiver site, or capture facility, MLVs will be sectionalizing block valves constructed within a 50-foot-wide by 50-foot-long site located within the 50-foot-wide, permanently maintained pipeline ROW. These intermediate valve sites will be located within a permanent aboveground easement obtained from landowners.

**Q. Are there pump station plans?**

**A.** Yes. There are four pump stations planned in South Dakota and they will be located in Minnehaha, Beadle, Brown, and McPherson counties. Construction of pump stations would start with civil pad work, followed by foundation installation, pipe and electrical installation, and finally commissioning activities. Pump stations will have security fence around the perimeter. All pumps

and major equipment will be installed within a shelter. Pump stations would be accessed using temporary access roads during construction and permanent access roads during operations.

**Q. Please describe the additional temporary work space requirements of the pipeline?**

A. The project will seek 50 feet of permanent operating easement plus up to an additional 60 feet of temporary easement along the route. Additional workspace will also be required at various features and crossings such as other buried utilities, roads, streams, rail crossings, heavy side slope cuts, and such. The additional area will vary depending on the feature but some examples for medium diameter pipe sizes are: Horizontal Directional Drills - 200' x 50' along with Pull Sections Length plus 100' x 50'; minor roads - 100' x 25'; Waterbodies 75' x 30'; buried feature crossings - 100' x 30'.

**Q. Will restoration be required?**

A. Yes. Restoration of all workspaces will be completed upon installation in accordance with the Permit requirements including the restoration and mitigation practices submitted with the Application and landowner agreements. Successful restoration and revegetation of the Project workspace is important for landowner relations, maintaining productivity and protecting the underlying soil from potential damage.

**Q. Where will the project store pipe and other equipment necessary for construction?**

A. Storage of pipe and equipment necessary for the construction of the Project will be required. There will be material, equipment and contractor yards located near the Project sites. These areas will also be restored upon project completion in accordance with the Permit requirements and landowner agreements.

**Q. How will the project access workspace to construct the pipeline?**

- A. Public and private roads will be utilized to access the project sites. Some roads may require modification or improvements to facilitate safe access for construction equipment and personnel.

The Project will require 38 temporary access roads for construction and 42 permanent access roads for operations. Permanent access roads will provide access to 51 MLVs, six launcher-receiver sites, and pump stations. Access roads will be 30 feet wide and will be constructed by grading and applying gravel as required to provide a drivable surface and to prevent erosion. Temporary access roads will be removed, and the area restored to previous conditions after construction unless otherwise agreed upon with individual landowners.

**Q. Will the pipeline require the use of water during construction?**

- A. Yes. The two largest uses of water associated with Project construction will be the water required for conducting hydrostatic tests during the final phases of construction and for dust control. Water used for hydrostatic testing of the pipeline, which may be over 25 million gallons in total, will be obtained from surface water resources. Hydrostatic testing will be conducted in accordance with the requirements of PHMSA pipeline safety regulations. Preliminarily identified water sources for hydrostatic tests are indicated in Table 12.

Water will be required for horizontal directional drilling (“HDD”). Water for the HDD operation is used to mix with naturally occurring drilling mud (e.g., bentonite clay) for drilling operation lubrication, hole stability and to remove drill cuttings.. Water will also be used for dust suppression, and such will be discharged directly onto project site as needed. The ground may be sprayed by watering trucks or sprinklers to control the dust. Water will not be applied in quantities to cause run off from the ROW.

**Q. Will water be discharged after its use?**

A. Hydrostatic test water will be filtered and discharged either to natural drainage over the ground, or back to water sources, either being performed in accordance permit requirements and landowner agreements. Water may also be discharged from excavations, and such will be filtered through erosion control devices, sediment controls, and discharge monitoring and inspection in accordance with permits, regulations, and landowner agreements.

**Q. How else will hydrology be affected?**

A. Impacts to hydrology will be mitigated through the use of erosion control measures and best management practices to reduce the rate of water flow and prevent scouring from runoff.

**Q. Will the pipeline utilize deep well injection?**

A. No. Deep well injection will not be utilized in South Dakota.

**Q. Are any homes displaced along the project route?**

A. No.

**Q. What effects are anticipated on surrounding land from construction or operations of the pipeline?**

A. None are anticipated outside the construction footprint. The possibility of a temporary reduction in crop yield is contemplated on the temporary workspace utilized during construction, and the landowner will be compensated in accordance with the landowner agreements.

**Q. What are the anticipated impacts to roads?**

A. Public and private roads will be utilized to access the project sites. Some roads may require modification or improvements to facilitate safe access for construction equipment and personnel.

As discussed previously, the Project will require construction of new temporary roads to provide access during construction and new permanent roads for future operational and maintenance access to the facilities.

Most paved roads will be bored, and the pipe will be installed with trenchless methods resulting in no impact. Where the open cut method is used, the roads will be restored to their original condition or better.

SCS Carbon Transport LLC expects to negotiate road use agreements with counties and townships, and to have a single road bond with the PUC as required by state law.

**Q. What are the permanent impacts to land use?**

**A.** Where aboveground facilities exist, the land use will be solely for the operations of the pipeline system and the landowner will be compensated in accordance with the landowner agreements. All agricultural lands may return to their original use. In forested areas, the 50-foot permanent operating easement will remain clear of trees but will be re-seeded with ground vegetation. In all other areas the land may return to its original use with the exception that no permanent structures may be built on the 50-foot permanent operating easement, to facilitate safe pipeline operations.

**Q Does the project cross South Dakota Rural Water Systems?**

**A.** Yes.

**Q. How does the project impact those rural water systems and are any measures planned to counter those impacts?**

**A.** SCS Carbon Transport LLC will coordinate with each rural water system operator to identify and plan the crossing method for any facilities crossed by the Project. This would include meetings

with each rural water system operator to understand the operating requirements of their system to properly design the best method to cross them and maintain safe water operations.

**Q. Does this conclude your written pre-filed testimony?**

**A. Yes**

Dated this 3<sup>rd</sup> day of November 2022.

*Erik Schovanec*

---

Erik Schovanec