

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Denbury Green Pipeline – North Dakota, LLC
12-inch Cedar Hills Pipeline Project – Slope & Bowman Counties
Siting Application**

Case No. PU-19-294

PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

February __, 2020

Appearances

Commissioners Brian Kroshus, Randy Christmann, and Julie Fedorchak.

Wade Mann, Attorney at Law, Crowley Fleck PLLP, 100 West Broadway, Suite 250, Bismarck, North Dakota 58501, on behalf of Denbury Green Pipeline – North Dakota, LLC and Denbury Green Pipeline – Montana, LLC.

Mitchell Armstrong, Special Assistant Attorney General for the North Dakota Public Service Commission, 122 E. Broadway Ave., Bismarck, North Dakota 58501.

Timothy Dawson, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58503, as Procedural Hearing Officer.

Preliminary Statement

On August 8, 2019, Denbury Green Pipeline-Montana, LLC, filed with the North Dakota Public Service Commission (“Commission”), a consolidated application for a Certificate of Corridor Compatibility and Route Permit concerning a 12-inch carbon dioxide (“CO₂”) transmission pipeline, and associated facilities in Slope and Bowman Counties, North Dakota (“Project”).

On August 19, 2019, Denbury filed an Amendment and Joinder of Denbury Green Pipeline-North Dakota, LLC (collectively herein “Denbury”) in application for a Certificate of Corridor Compatibility and Route Permit (Original Application Docket No. 1 and Amendment and Joinder Docket No. 5, collectively herein “Application”).

On December 18, 2019, the Commission deemed Denbury’s Application complete and issued a Notice of Filing and Public Hearing (“Notice”) scheduling a hearing for February 6, 2020, at 10:00 a.m. Central Time at Bowman Lodge & Convention Center, 207 West Highway 12, Bowman, North Dakota 58623.

The Notice identified the following issues to be considered with respect to the Application:

1. Will the location, operation, and maintenance of the facility at the proposed location produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

2. Is the proposed facility compatible with the environmental preservation and the efficient use of resources?
3. Will construction, operation, and maintenance of the facility at the proposed location minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On February 6, 2020, the hearing was held as scheduled.

Having allowed all interested persons an opportunity to be heard, and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes the following:

Findings of Fact

1. Denbury Green Pipeline – North Dakota, LLC and Denbury Green Pipeline – Montana, LLC are both Delaware limited liability companies. Both Denbury entities have been authorized to do business in the State of North Dakota, as evidenced by the Certificate of Authority for each entity filed with the Commission on September 5, 2019, as Docket No. 10.

Need for the Facility

2. Denbury operates multiple oil and gas wells in the Cedar Hills oil field in Bowman County, North Dakota that produce from the Red River B and South Red River B pools. Production has been active since the late 1990's and as production has gradually declined, Denbury has used secondary recovery methods to continue to extract oil and gas from the pools. Construction of the Project will provide Denbury with a readily available source of CO₂ for use in a tertiary or enhanced oil recovery project in an effort to extract additional oil and gas from the reservoir than would otherwise be possible through primary or secondary recovery methods.

Size, Type, and Preferred Location of Facility

3. The CO₂ Pipeline Project will consist of approximately 17.77 miles of 12-inch inside diameter (12.75-inch outside diameter) welded steel pipeline with a nominal wall thickness of 0.469-inches and 0.562-inches in specific locations such as horizontal directional drilling (HDD) bores.

4. The Project will originate with a connection to Denbury's Cedar Creek Anticline CO₂ pipeline approximately 6.3 miles southeast of Baker, Montana and terminate at Denbury's Miller Production Tank Battery EOR Development Site, located in the NE/4SW/4 of Section 33, Township 132 North, Range 106 West in Bowman County, North Dakota.

5. Approximately 2.29 miles of the Project is located in Slope County, North Dakota and 6.94 miles in Bowman County, North Dakota, with the remainder of the Project being located in Fallon County, Montana.
6. The maximum operating pressure of the pipeline will be 3,702 pounds per square inch gauge, with a maximum operating temperature of 100 degrees Fahrenheit.
7. The maximum design flow rate of the pipeline will be approximately 180 million standard cubic feet per day.
8. The Project will be designed, constructed, maintained, inspected and operated to meet or exceed the U.S. Department of Transportation (USDOT), Pipeline Hazardous Materials Safety Administration (PHMSA) regulations.
9. The estimated cost of the North Dakota portion of the Project is approximately \$9.2 million dollars.

Study of Preferred Location

10. Denbury identified a one-mile wide area centered upon the proposed pipeline alignment (“Study Area”). Denbury evaluated the Study Area for the Exclusion, Avoidance, Selection and Policy criteria of the Commission.
11. Denbury conducted field surveys on a 200-foot-wide area centered on the proposed pipeline alignment (“Project Corridor”).
12. Denbury conducted a Class I cultural resource literature review of the one-mile-wide Study Area to identify any previously recorded cultural resources.
13. Denbury conducted Class III Cultural Resource Inventory pedestrian field surveys on the Project Corridor in accordance with the North Dakota State Historic Preservation Office (“ND SHPO”) standards. ND SHPO concurred with a “No Significant Sites Affected” recommendation for the Project.
14. A wetland and waterbody inventory was completed for the proposed pipeline route.
15. Five palustrine emergent wetlands were identified within the Project Corridor totaling approximately 0.42 acres. Four ephemeral streams were identified in addition to Little Beaver Creek, a perennial stream that will be crossed using the HDD construction method. No permanent impacts to any wetlands or waterbodies are anticipated.
16. Denbury conducted field surveys on the Project Corridor to evaluate for paleontological resources. No negative impacts to any significant paleontological resources are anticipated as a result of the Project.

17. The following agencies provided comments regarding the Project: U.S. Fish and Wildlife Service; North Dakota State Historical Preservation Office (“NDSHPO”); North Dakota Department of Parks and Recreation; North Dakota Department of Trust Lands; North Dakota Department of Health; North Dakota Geological Survey; North Dakota Industrial Commission, Department of Mineral Resources, Oil and Gas Division; North Dakota State Water Commission; North Dakota Department of Transportation; North Dakota Department of Environmental Quality; and, North Dakota Game and Fish Department.

Siting Criteria

18. The Commission has established criteria pursuant to North Dakota Century Code section 49-22.1-03 to guide the Commission in evaluating the suitability of granting a certificate for corridor compatibility and route permit. The criteria, as set forth in North Dakota Administrative Code section 69-06-08-02 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.

19. Denbury evaluated the Project Corridor and route with respect to the Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.

20. An Exclusion Area may be located within a corridor, but at no given point may such an area or areas encompass more than fifty percent of the corridor unless there is no reasonable alternative. A transmission facility route must not be sited within an Exclusion Area.

21. No Exclusion Areas are intersected by the pipeline route and none will be adversely impacted by the Project.

22. An Avoidance Area is a geographical area that may not be considered in the routing of a transmission facility unless the applicant demonstrates that under the circumstances, there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a transmission facility, the Commission may consider, among other things, the proposed management of adverse impacts, the orderly siting of facilities, system reliability and integrity, the efficient use of resources, and alternative routes.

23. No Avoidance Areas are present within the Project Corridor.

24. In accordance with the Commission’s Selection Criteria, a transmission facility shall be approved if it is determined that any significant adverse effects that will result from the location, construction and operation of the facility as they relate to the Selection Criteria will be at an acceptable minimum, or will be managed and maintained at an acceptable minimum. Denbury has analyzed the impacts of the Project in relation to all relevant Selection Criteria. No significant adverse impact will result from the location, construction and operation of the Project.

25. In accordance with the Commission’s Policy Criteria, preference may be given to an application demonstrating certain benefits of the transmission facility. Denbury has analyzed the relevant policy criteria and submitted evidence to demonstrate its commitment to maximize the

benefits of the proposed transmission facility to the extent possible so as to meet the Policy Criteria.

26. Denbury has obtained 100% of the easements necessary for the Project.

Measures to Minimize Impact

27. Denbury has agreed to steps to mitigate the impact of the Project, as indicated by the executed Certification Relating to Order Provisions – Transmission Facility Siting, with accompanying Tree and Shrub Mitigation Specifications, which is incorporated by reference and attached to this Order.

28. The standard Tree and Shrub Mitigation Specifications require an inventory of 1) all trees one-inch or greater in diameter at breast height and 2) all shrubs and all coniferous trees of any diameter. The maximum width of tree and shrub removal is 50 feet, unless otherwise approved by the Commission. Denbury conducted tree and shrub inventories. The results of the inventories are contained in Hearing Exhibit No. 8, Docket No. 52.

29. In an effort to have sufficient work space during construction for equipment and personnel to safely travel up and down the corridor and to help the Project be more efficient, Denbury obtained a 75-foot right-of-way from all landowners along the route (50-foot permanent and 25-foot temporary).

30. After review of the route, there are four trees one-inch or greater in diameter at breast height and no coniferous trees are located within the 75-foot right-of-way that Denbury has secured for the Project. Denbury plans to clear the two trees within the 50-foot right-of-way during construction but ***will not clear*** the other trees that are located outside of the 50-foot but within the 75-foot right-of-way.

31. Regarding shrubs, Denbury hereby requests approval to clear shrubs between the 50-foot and 75-foot right-of-way in the areas identified on the map set in Hearing Exhibit No. 8, Docket No. 52. As mentioned above, allowing expanded clearance of shrubs in the specified locations will help facilitate safe construction and travel operations during the Project.

32. Denbury will continue to coordinate with local authorities and emergency managers regarding emergency response measures and follow Denbury's emergency response plan for the Project.

33. Denbury will comply with all applicable safety laws and standards and standard operating procedure will conform to applicable United States Department of Transportation requirements, which include regular pipeline monitoring and period inspection.

34. Denbury will utilize the North Dakota One Call system during construction.

From the foregoing Findings of Fact, the Commission makes the following:

Conclusions of Law

1. The Commission has jurisdiction over Denbury and over the subject matter of the Application under North Dakota Century Code chapter 49-22.1.
2. Denbury is a utility as defined in North Dakota Century Code section 49-22.1-01(12).
3. The Project is a transmission facility as defined in North Dakota Century Code section 49-22.1-01(7).
4. The location, construction, and operation of the Project will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
5. The location, construction, and operation of the Project is compatible with the environmental preservation and the efficient use of resources.
6. The Project will minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.

From the foregoing Findings of Fact and Conclusions of Law, the Commission makes the following:

Order

The Commission orders:

1. Certificate of Site Compatibility No. ___ is issued to Denbury Green Pipeline – North Dakota, LLC and Denbury Green Pipeline – Montana, LLC, designating a corridor for the construction, operation, and maintenance of approximately 9.23 miles of 12-inch diameter CO₂ pipeline and associated facilities in Slope and Bowman Counties, North Dakota. For purposes of this Certificate, the designated corridor consists of a 200-foot wide area centered on the designated route.
2. Route Permit No. ___ is issued to Denbury Green Pipeline – North Dakota, LLC and Denbury Green Pipeline – Montana, LLC, designating a route for the construction, operation, and maintenance of approximately 9.23 miles of 12-inch diameter CO₂ pipeline and associated facilities in Slope and Bowman Counties, North Dakota. For purposes of this Permit, the designated route is the route of the Project as depicted on Map Set received as Hearing Exhibit No. 5, Docket No. 47.
3. The Certification Relating to Order Provisions – Energy Conversion Facility Siting with accompanying Tree and Shrub Mitigation Specifications executed February 3, 2020 (received as Hearing Exhibit No. 4, Docket No. 46), is incorporated by reference and attached to this Order.

The Tree and Shrub Mitigation Specifications are hereby modified to allow shrubs to be cleared up to 75 feet in the areas identified on the map set in Hearing Exhibit No. 8, Docket No. ___.

4. To the extent there are any conflicts or inconsistencies between Denbury's Application and the Certification, the Certification provisions control.

PUBLIC SERVICE COMMISSION

Julie Fedorchak
Commissioner

Brian Kroshus
Chairman

Randy Christmann
Commissioner