

BEFORE THE STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Cerilon GTL ND Inc.
Cerilon GTL North Dakota Project – Williams County
Siting Application

Case No. PU-23-325

PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

July ____, 2024

Appearances

Commissioners Randy Christmann, Julie Fedorchak, and Sheri Haugen-Hoffart.

Wade C. Mann, Casey A. Furey, and Erik J. Edison, Crowley Fleck PLLP, 100 West Broadway Avenue, Suite 250, Bismarck, North Dakota 58501, on behalf of Applicant Cerilon GTL ND Inc.

John M. Schuh, Special Assistant Attorney General, 600 E. Boulevard Ave., Dept. 408, Bismarck, North Dakota 58505-0480, North Dakota Public Service Commission.

Hope L. Hogan, Administrative Law Judge (“ALJ”), Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58503, as Procedural Hearing Officer.

Preliminary Statement

On October 5, 2023, in Case No. PU-23-325, Cerilon GTL ND Inc, (“Cerilon”) filed an Application for a Certificate of Site Compatibility for two natural gas-to-liquid (“GTL”) hydrocarbon energy conversion facilities, each with an associated steam powered electric energy conversion facility (the “Project”), to be located in Williams County, North Dakota.

On February 7, 2024, the Commission deemed the application of Cerilon complete. Also on February 7, 2024, the Commission issued a Notice of Filing and Notice of Public Hearing (the “Notice”) for the Project and scheduled a public hearing for June 17, 2024, at 9:00 a.m. Central Time, at The Grand Williston Hotel & Conference Center, 3601 Second Avenue West, Williston, ND 58801.

The Notice identified the issues to be considered in Case No. PU-23-325 as follows:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?

3. Will 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 June 17, 2024, a public hearing on the application for the Project (the “Hearing”) was held as scheduled in Williston, North Dakota.

Exhibits 1 through 19 were entered into the record by Cerilon at the Hearing.

On July 31, 2024, Cerilon filed Late-Filed Exhibits 20-23.

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. Cerilon GTL ND Inc. is a North Dakota corporation.
2. Cerilon is authorized to transact business in the State of North Dakota, as evidenced by the Certificate of Good Standing issued by the North Dakota Secretary of State and filed with the Commission in Case No. PU-23-324.
3. The Project will be owned and operated by Cerilon GTL ND Inc.

Size, Type and Preferred Location of Facility

4. The Project site is approximately 370 acres in Sections 25 and 36, Township 153 North, Range 103 West, in Williams County, North Dakota (the “Project Site”). The Project Site is approximately 7.5 miles southwest of the city limits of Williston. The Project Site is bordered to the west by Savage Services Corporation’s Bakken Petroleum Services Hub and to the north by the Great Northern Railroad.
5. The Project consists of two GTL facilities which Cerilon proposes to construct in phases (Phase 1 and 2). Each GTL facility will convert over 240 million standard cubic feet per day of natural gas to approximately 24,000 barrels per day of synthetic energy products anticipated to include Group III+ base oils, ultra-low sulfur diesel, and naphtha. The Project will produce excess heat energy that will be used to operate the Project’s steam turbines and generators. The power generated by the Project will vary with the age of the catalysts in the process and is anticipated to range between approximately 65 and 81 megawatts per phase. The electricity generated on-site will exceed the Project’s electrical demand during normal operations. Through a buy-all, sell-all arrangement, Cerilon anticipates selling all electrical power generated at the Project to Basin Electric Power Cooperative. The Project will purchase electricity from the grid through Lower Yellowstone Rural Electric Cooperative for all its electrical consumption.

6. Additional facilities associated with the Project include fuel gas-fired steam generating boilers, interim liquid and gas storage vessels, air separation units for producing nitrogen and oxygen, raw water treatment and wastewater treatment plants, an underground firewater reticulation system, operations and maintenance building, and other associated on-site processing equipment and systems necessary for Project operations.
7. Cerilon has purchased and is under contract to purchase a total of 370 acres comprising the Project Site.
8. Cerilon anticipates commencing construction of Phase 1 of the Project in 2026 with full commercial operations of Phase 1 anticipated to commence in 2029. Phase 2 of the Project is anticipated to be in full commercial operation in 2033.
9. The estimated total cost to construct Phase 1 of the Project is over approximately \$3 billion.

Study of Preferred Location

10. Cerilon sent coordination letters to the federal, state, and local departments, agencies, and entities designated in N.D. Admin. Code § 69-06-01-05. North Dakota Century Code Section 49-22-16(4) provides that compliance with an agency's rules shall be presumed if the agency fails to present its position with respect to the proposed facility at least thirty days before the public hearing. The federal, state, and local departments, agencies, and entities that provided comment in response are as follows:
 - a. Federal: United States Department of Agriculture; United States Bureau of Reclamation; United States Fish and Wildlife Service; Office of the Assistant Secretary of Defense - Military Aviation and Installation Assurance Siting Clearinghouse; and the United States Minot Air Force Base.
 - b. State: Department of Commerce; Department of Mineral Resources; Parks and Recreation Department; Department of Environmental Quality; Department of Trust Lands; and, the State Historical Society of North Dakota.
 - c. Local: McKenzie County Board of County Commissioners; Williams County Board of County Commissioners; and, the Buford Trenton Irrigation District.
11. Agency consultations and comments are noted in the Application, exhibits, and testimony presented at the public hearing. Cerilon has avoided, minimized, and/or mitigated impacts for all issues raised by local, state, and federal agencies.
12. North Dakota Century Code § 49-22-16(2) provides that no energy conversion facility site shall be designated that violates any local land use, zoning, or building rules, regulations, or ordinances. Cerilon has obtained a conditional use permit from Williams County for the Project. Exhibit No. 8.

13. Cerilon evaluated the Project and its potential impacts on the area within one mile of the Project Site. Cerilon completed the following studies and surveys: Phase I and Phase II Environmental Site Assessment; Wetland Delineation Report; Threatened and Endangered Species Evaluation; Class I Cultural Desktop Evaluation; Class III Cultural Resource Inventory; Preliminary Noise Model; and a Preliminary Traffic Impact Study.

14. Cerilon conducted Class III Cultural Resource Inventories for archaeological resources for areas to be temporarily and permanently impacted by the Project and submitted the reports to the North Dakota State Historical Preservation Office (“SHPO”). On November 3, 2023, SHPO issued two letters for archaeological resources located within the Project Site. SHPO found Cerilon’s Class III Cultural Resource Report acceptable and determined there are no significant sites affected by the Project provided the Buford-Trenton Irrigation Canal is avoided. Exhibit Nos. 4 and 16.

15. Cerilon conducted natural resource field surveys within the Project Site. The field surveys gathered information on soils, land use and vegetation, wetlands and waterbodies, woodlands, trees and shrubs, and wildlife, including protected species and critical habitats.

16. Cerilon utilized the U.S. Fish and Wildlife Service (“USFWS”) Information for Planning and Conservation tool and onsite surveys to identify the potential for occurrence of threatened or endangered species or their designated critical habitat within the Project Site. This tool identified five threatened or endangered species that could potentially occur within the Project Site: piping plover (threatened), rufa red knot (threatened), whooping crane (endangered), Dakota skipper butterfly (threatened), and northern long-eared bat (“NLEB”) (endangered). No designated critical habitat for threatened or endangered species is located within the Project Site. Cerilon’s studies and surveys concluded the Project Site lacks suitable habitat for these species. Due to the absence of suitable habitat, it is anticipated that the Project will have no effect on the whooping crane and is not likely to adversely impact the Dakota skipper, piping plover, or red knot species.

17. Trees and shrubs are sparsely located within most of the Project Site. Cerilon has sited the Project to avoid impacts to trees and shrubs to the extent practicable. Due to the space needed for the Project’s facilities, the Project will require the removal of trees and shrubs in areas larger than 50 feet to accommodate construction and safe operation of the Project. As a result, Cerilon has requested modification to remove the standard 50-foot clearance limitation in the Commission’s Tree and Shrub Mitigation Specifications. Tree or shrub removal and replacement will be conducted in accordance with the Commission’s Tree and Shrub Mitigation Specifications.

Siting Criteria

18. The Commission has established criteria pursuant to North Dakota Century Code §§ 49-22-05.1 and 49-22.1-03 to guide the Commission in evaluating the suitability of granting a Certificate of Site Compatibility. The criteria, as set forth in North Dakota Administrative Code § 69-06-08-01 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.

19. Cerilon evaluated the Project with respect to the Exclusion, Avoidance, Selection, and Policy Criteria of the Commission.

20. North Dakota Administrative Code § 69-06-08-01(1) sets forth the Commission's Exclusion Area criteria applicable to the Project. An energy conversion facility shall not be sited within an Exclusion Area.

21. No known Exclusion Areas are located within the Project Site or impacted by the Project.

22. North Dakota Administrative Code § 69-06-08-01(2) sets forth the Commission's Avoidance Area criteria applicable to the Project. An energy conversion facility must not be sited within an Avoidance Area unless the applicant shows that, under the circumstances, there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a 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 sites.

23. With respect to Avoidance Areas, historical resources not designated as Exclusion Areas are located within the Project Site; however, Cerilon has sited the Project to avoid impacts to historical resources. The Buford-Trenton Irrigation Canal is an operating irrigation canal previously recommended as eligible for inclusion on the National Register of Historic Places and intersects a portion of the southeastern corner of the Project Site. The U.S. Bureau of Reclamation has an easement for the canal's route through the Project Site. The Project has been sited to avoid impacts to the canal.

24. Areas within known floodplains as defined by the geographical boundaries of the hundred-year floodplain are an Avoidance Area.

- a. The Project Site is not currently mapped in the Federal Emergency Management Administration's ("FEMA") flood hazard mapping program and is not identified as within the 100-year or 500-year floodplain with the exception of an area bounded by 42nd St NW, 147th Ave NW, and the irrigation canal. The United States Army Core of Engineers ("USACE") has been granted a flowage easement for this area, which restricts development and construction of the land without written approval from USACE. Cerilon has sited the Project to avoid impacts to the USACE easement.
- b. The North Dakota flood risk assessment map identifies multiple low-lying areas in the Project Site with a 1% annual risk of flooding. These areas are primarily located adjacent to the natural drainages. The Project Site's relatively small size and geometry, existing infrastructure in and around the Project Site, and safe and efficient design of the Project will require the development of most of the rest of the Project Site, including in areas with a 1% annual flood risk. Because of the site constraints, there is no reasonable alternative for utilizing these areas of the Project Site. However, Cerilon testified it will fill and grade the site to eliminate the risk of

flooding in these low-lying areas and will develop a stormwater management system to collect and manage runoff. The Project is not anticipated to adversely cause or contribute to flooding at or near the site.

25. Wetlands are designated as an Avoidance Area. Wetland delineations were completed for the Project. The Project has been sited to avoid permanent impacts to wetlands to the greatest extent possible. The Project will have negligible impacts to wetlands and will result in permanent impacts to 0.13 acres of wetlands. Cerilon testified there is no reasonable alternative to impacting these wetland locations. Cerilon testified the Project Site was selected to accommodate two phases while minimizing the Project's footprint as much as possible; therefore, the size and geometry of the Project Site and the need for a safe and efficient design of the project will require development of most of the property including the 0.13 acres of wetlands identified.

26. No additional known Avoidance Areas are located within the Project Site or impacted by the Project.

27. North Dakota Administrative Code § 69-06-08-01(5) sets forth the Commission's Selection Criteria applicable to the Project. In accordance with the Commission's Selection Criteria, a site may be approved in an area when it is demonstrated to the Commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the criteria designated in § 69-06-08-01(5) will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum.

28. North Dakota Administrative Code § 69-06-08-01(6) sets forth the Commission's Policy Criteria applicable to the Project. In accordance with the Commission's Policy Criteria, the Commission may give preference to an applicant that will maximize benefits that result from the adoption of identified policies and practices in § 69-06-08-01(6). The Commission may also give preference to an applicant that will maximize interstate benefits.

29. Cerilon submitted evidence that the Project will not have a significant adverse impact on the Selection Criteria set forth in North Dakota Administrative Code § 69-06-08-01(5). Additionally, Cerilon committed to maximizing the benefits of the Project to the extent practicable to meet the Policy Criteria set forth in North Dakota Administrative Code § 69-06-08-01(6).

30. There will be no adverse impacts to agricultural production outside of the Project Site. Cerilon is committed to working with neighboring landowners to mitigate impacts of the Project, to the extent practicable.

31. Cerilon conducted a traffic impact study in accordance with North Dakota Department of Transportation requirements to understand and assess the potential impacts of the Project on adjacent roads and Highway 1804. The traffic study has been submitted to the ND Department of Transportation ("NDDOT") and Williams County. Recommendations included improvements on 42nd Street NW and 147th Avenue NW to address capacity issues. Cerilon testified it is working

with the adjacent townships, Williams County and the NDDOT to coordinate necessary upgrades to handle projected increases in traffic load resulting from the Project which include:

- c. 42nd Street NW and Proposed Main Driveway. Construct southbound approach with one (1) ingress lane and one (1) egress lane. Provide stop-control for the southbound approach.
 - d. 42nd Street NW and Proposed Delivery Driveway. Construct southbound approach with one (1) ingress lane and one (1) egress lane. Provide stop-control for the southbound approach.
 - e. 147th Avenue NW and Proposed East Driveway. Construct eastbound approach with one (1) ingress lane and one (1) egress lane. Provide stop-control for the eastbound approach.
32. Cerilon has committed to local residents that its primary entrance to the Project Site will be on 42nd Street and the secondary access on 147th Avenue will be used only during construction, plant turnarounds and for emergency egress.
33. Cerilon testified it is coordinating with the North Dakota and Minnesota Departments of Transportation to plan routes for the safe delivery of component modules on existing infrastructure. Construction traffic to and from the Project Site will be managed as part of a Construction Management Plan that will be developed prior to the start of construction and will be reviewed with the townships, Williams County and the NDDOT.
34. Cerilon has agreed to certain mitigation efforts to reduce sound from the Project and will work to mitigate sound to the greatest extent possible. Mitigation approaches for sound include regular maintenance of equipment, scheduling noisier construction activities during daylight hours whenever possible, enclosing certain equipment within a structure, and placing physical barriers to block sound. Physical obstructions, both natural and man-made, can also attenuate sound impacts and Cerilon testified it will incorporate sound mitigation into the Project design to the greatest extent possible. This will include the installation of a sound buffer in accordance with Cerilon's Williams County Conditional Use Permit.
35. Cerilon will utilize best management practices to minimize impacts on ground and surface water, and to prevent soil erosion. Erosion control measures required under the National Pollution Discharge Elimination System permit and the associated Stormwater Pollution Prevention Plan will be implemented. Construction of the Project is not anticipated to have a significant adverse impact on surface or ground water resources or soils.
36. The Project will not have significant adverse impacts on the area's availability to provide law enforcement, government, health, education, community, and utility facilities or services.
37. The Project is expected to be of economic benefit to the affected area through the creation of construction, operation and maintenance jobs, state and local tax revenue, and local expenditures.

Additional Measures to Minimize Impacts

38. Cerilon has agreed to take certain steps to mitigate the impact of the Project as indicated in the Certification Relating to Order Provisions with accompanying Tree and Shrub Mitigation Specifications, filed with the Commission as Late-Filed Exhibit 21.
39. To avoid potential adverse impacts to the NLEB, all trees will be inventoried, mature trees will be preserved where possible and tree removal will only occur outside of the USFWS recommended timing restrictions.
40. The North Dakota Game and Fish Department (“NDGF”) has identified key habitats for bald and golden eagles in the badlands, Lake Sakakawea, and within the Missouri River system. The closest key habitat, the Missouri River system, is located over two and three quarter (2.75) miles southwest of the Project Site. Cerilon contacted NDGF in May 2023, who confirmed via email that there are no known bald or golden eagle nests within one (1) mile of the Project Site.
41. In a correspondence dated May 22, 2024, the United States Fish and Wildlife Service noted that it appreciates the early contact by Cerilon to discuss the Project and Cerilon’s willingness to cooperate with USFWS. The USFWS did not identify any concerns with the Project. Exhibit 15.
42. Air emissions and potential impacts are regulated by and subject to oversight from the North Dakota Department of Environmental Quality. Prior to Project construction, Cerilon must obtain a Permit to Construct and a Prevention of Significant Deterioration permit from the North Dakota Department of Environmental Quality. Cerilon must also submit an application for a Title V Permit to Operate from the Department within 12 months of commencing operation.
43. The Project will have an automated process control system that includes communications technology to allow control and monitoring of the Project 24 hours a day, 7 days a week via an onsite control room. The communications system permits remote supervision of Project operations. In the unlikely event of an emergency, the operators or automated control system can shut down the facility either manually or automatically.
44. Cerilon will implement an Emergency Response Plan (“ERP”) that governs reporting and response procedures in the event of an emergency. The ERP will be shared with local emergency response teams for review and comment, and training will be coordinated as necessary. Cerilon testified it has engaged with the Williston Fire Department, the Williston Rural Fire Department, and the Trenton Rural Fire Department regarding emergency preparedness and these discussions and engagement remain ongoing.
45. The Project creates an alternative market for the beneficial use of natural gas which, in turn, allows more take away capacity for excess natural gas in the region.
46. The Project will be constructed pursuant to National Electrical Safety Code requirements.
47. Cerilon will participate in North Dakota One-Call Excavation Notice System.

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

Conclusions of Law

1. The Commission has jurisdiction over Cerilon and the subject matter of the Application under North Dakota Century Code Chapters 49-22 and 49-22.1.
2. Cerilon is a utility as defined in North Dakota Century Code §§ 49-22-03(14) and 49-22.1-01(13).
3. The GTL processing facility proposed by Cerilon is a gas energy conversion facility as defined in North Dakota Century Code § 49-22.1-01(6).
4. The energy conversion facility proposed by Cerilon is an electric energy conversion facility as defined in North Dakota Century Code § 49-22-03(5).
5. The Application submitted by Cerilon meets the site evaluation criteria required by North Dakota Century Code Chapters 49-22 and 49-22.1.
6. There is no reasonable alternative to the floodplain and 0.13 acres of wetland impacts identified by Cerilon.
7. Cerilon is permitted to remove trees and shrubs in excess of 50 feet in width.
8. 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.
9. 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.
10. The location, construction, and operation of the Project are compatible with environmental preservation and the efficient use of resources.

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

Order

The Commission orders:

1. Certificate of Site Compatibility for an Energy Conversion Facility No. __ is issued to Cerilon ND GTL Inc. for the construction, operation, and maintenance of a GTL energy conversion facility known as Cerilon GTL Facility corresponding to the Project Site depicted in Exhibit 1, Figure A.1.
2. Cerilon's Certification Relating to Order Provisions with accompanying Tree and Shrub Mitigation Specifications filed with the Commission as Late-Filed Exhibit 21, is incorporated by reference and attached to this Order. The Tree and Shrub Mitigation Specifications may be modified upon the mutual agreement of the Commission and Cerilon.
3. To the extent there are any conflicts or inconsistencies between Cerilon's Application and the Certification, the Certification provisions control.
4. Prior to commencing construction of any portion of the Project, Cerilon shall obtain all other necessary permits for construction of the Project and shall provide copies to the Commission prior to commencing construction on the portion of the Project for which the permit is required.

PUBLIC SERVICE COMMISSION

Julie Fedorchak
Commissioner

Randy Christmann
Chairman

Sheri Haugen-Hoffart
Commissioner