

Case ID - Case Name: 19-1823-EL-BGN - Big Plain Solar
Company Name: Big Plain Solar, LLC
Amendment(s): 21-1196-EL-BGA
Related Case(s): 21-1174-EL-BLN
Case Status: Under Construction
Certificate Approved Date: March 18, 2021
Construction Start Date: March 10, 2022
Case Type: Solar Generation
Capacity, Acreage: 196.0 MW, 2438 acres
County(s): Madison
Township(s): Fairfield, Oak Run
Report Number: CI23-19-1823-001

Background

On March 18, 2021, the Ohio Power Siting Board (Board) issued a Certificate of Environmental Compatibility and Public Need (Certificate) to Big Plain Solar, LLC (Big Plain or Certificate Holder) in Case No. 19-1823-EL-BGN for the construction, operation, and maintenance of a 196 megawatt (MW) solar-powered electric generation facility (Project), subject to the conditions set forth in the Stipulation and consistent with the Opinion, Order, and Certificate. Big Plain consists of 1,168-acres located in Fairfield and Oak Run townships in Madison County. The project is currently owned and operated by Leeward Renewable Energy Development, LLC. Construction began on March 10, 2022, and is still ongoing, as of the date of this report. Case No. 21-1174-EL-BGN is an OPSB approved related case, in which Big Plain will construct a transmission facility as infrastructure to carry electricity from the facility to the grid. This infrastructure is not a subject of this compliance inquiry report.

Summary

On January 18, 2023, the Madison County Engineer (Engineer) contacted Power Siting Board Staff (Staff) to advise of potential violations to local rules and regulations at Big Plain in relation to road use and conditions. In response, Staff opened this Compliance Inquiry (CI) to document the developing situation. Madison County activated county resources to take corrective action with Big Plain including the County Administrator's Office and Sheriff's Department. On January 30, 2023, Staff received an update from the Engineer's Office stating that road conditions had improved, and trucks were obeying the delivery route designations. Staff left the CI open to continue to monitor the situation.

On February 14, 2023, the Engineer met with the Ohio Environmental Protection Agency (OEPA) to survey site conditions. The Engineer subsequently reported to Staff poor site conditions, so a meeting date was set between the Engineer's Office and Staff to review site conditions. Staff observed the following concerns on February 15, 2023:

1. Construction traffic reportedly in violation of the Road Use Maintenance Agreement.
2. Issues with proper construction waste disposal.
3. Potential damage to the viability of Agricultural land.
4. Impounded water.
5. Concerns about the ability to control fugitive dust.
6. Resolved status of roadway conditions.

Staff's evaluation of these concerns is in relation to the conditions approved by the Board in the Opinion and Order dated March 18, 2021, in Case No. 19-1823-EL-BGN.

On March 14, 2023, the Engineer issued a Notice of Violation to Big Plain concerning soil erosion related to uncontrolled stormwater runoff and lack of vegetation, impounded water due to damaged drain tiles and improper site grading, and construction debris being inadequately contained and incorporated into the soil. The Engineer instructed Big Plain to formulate a response within two weeks.

Observations

The following are the observations related to each of the corresponding items contained in the above list:

1. Construction Traffic

Condition 26 of the Certificate states, *"Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, the Ohio Department of Transportation, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final transportation management plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition."*

Designated transportation routes are specified in the Road Use Maintenance Agreement (RUMA) the Applicant entered into with the Engineer. According to the Engineer, he witnessed delivery trucks running off route as recent as February 15, 2023, which was after the Applicant already received a warning from the Engineer concerning this issue on 01/20/2023. Further, the Engineer is concerned about the County's ability to recover the cost of repairing non-designated routes damaged by facility traffic, most notably Gregg Mill Road. Based on the Engineer's account, Staff has concerns about Big Plain's commitment to abide by the designated routes described in the RUMA.

2. Construction Waste Disposal

Paragraph 61 of the Certificate states *"During operation, the Facility would generate small amounts of similar solid waste, which would also be disposed of pursuant to state and federal requirements. In short, Staff notes that Big Plain's solid waste disposal plans comply with the requirements set forth in R.C. Chapter 3734."*

Per page 46 of the Applicant's application, *"Construction waste will be collected from PV panel installation sites and other Facility work areas and disposed of in dumpsters located at the laydown yard. A private contractor will empty the dumpsters on an as-needed basis and dispose of the refuse at a licensed solid waste disposal facility. Waste materials will be recycled when possible. Used oil, used antifreeze, and universal waste, if any, will be handled, managed, and disposed of in accordance with federal, state, and local regulations."*

On February 15, 2023, Staff witnessed construction debris littering the job site not only in the collection areas, but elsewhere the wind had carried it. Debris included plastic wrapping, plastic bags, cardboard, wood pallets, metallic conduit scraps, and plastic pallet binders. Based on its observations at the site, Staff has concerns about Big Plain's commitment to adequately clean up construction debris due to the debris being driven over and stepped on in muddy conditions.

Corresponding attachments: Photographs 4a, 6a, 7b, 8b

3. Viability of Agricultural Land

Paragraph 61 of the Certificate states, *“Big Plain would repurpose the land so it can be restored to agricultural use when Big Plain decommissions the Facility. Big Plain will also take steps to address potential impacts to farmland, including repair of all drainage tiles damaged during construction and during the operational life of the project, as well as restoring temporarily impacted land to its original use.”*

Per page 46 of the Applicant’s application *“Any topsoil that is displaced due to placement of gravel for material laydown and storage areas, vehicle turn- around areas, parking areas, etc. that are to be removed upon the completion of site construction shall be stockpiled separately. This will be considered the amount of “construction duration” topsoil displacement and will be separated from other excavated materials. such as rocks or subsoil.”*

The Engineer expresses concern due to excessive rutting caused during construction, which is occurring throughout the northern portion of the project. Specifically, topsoil is being damaged and intermingled with subsoil, which may be causing a permanent degradation of agricultural viability. Staff’s observations align with the concerns of the Engineer that vast areas of rutting throughout the project may be damaging the integrity of the land’s agricultural potential.

Corresponding attachments: Photographs 2a, 4a, 4b, 5a, 6a, 7a, 7b

4. Impounded Water

Condition 15 of the Certificate states, *“The Applicant shall avoid, where possible, or minimize to the extent practicable, any damage to functioning field tile drainage systems and soils resulting from the construction, operation, and/or maintenance of the facility in agricultural areas. Damaged field tile systems shall be promptly replaced or repaired to at least original conditions or modern equivalent at the Applicant’s expense. The affected landowner may agree to not having the damaged field tile system repaired only if the field tile systems of adjacent landowners remain unaffected by the non-repair of the landowner’s field tile system.”*

Per page 59 of the Application, *“To maintain soil stability during construction, adequate surface water run-off drainage will be established and properly controlled at the Project Area to minimize any increase in the moisture content of the subgrade material. Positive drainage of each construction site will be created by gently sloping the surface toward drainage swales.”*

The Applicant has many locations with impounded water that appear to relate to a variety of factors including elevated access roadways and obstructed drain tiles due to pile driving. A well-drained site is vital to the safe and successful operation of an industrial solar generation facility. Therefore, Staff expresses concern about the ability of the project to properly drain the site now that access roads, racking, panels, and collector lines are already installed. Additionally, Staff expresses concern for the safety of construction crews working on solar equipment in knee-deep water (see attached photograph 8b).

Corresponding attachments: Photographs 1c, 3b, 7a, 8b, 9a5.

Fugitive Dust

Paragraph 59 of the Certificate states, *“Accordingly, Big Plain would need to minimize construction-related dust and has indicated that it plans to do so by using best management practices, such as using water to wet soil to minimize dust.”*

On February 15, 2023, Staff witnessed a substantial amount of dust, given the relatively damp conditions of mid-February, being blown into the air across the northern portion of the project. Due to work that needs to be completed to repair excessive rutting and relieve impounded water, Staff is concerned that fugitive dust may become a nuisance to neighboring properties as drier months approach.

Corresponding attachments: All photographs

6. Road Conditions

Condition 26 of the Certificate states, *“Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, the Ohio Department of Transportation, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final transportation management plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition.”*

On December 14, 2022, Staff received an inquiry from the public concerning roads covered in mud allegedly due to the Project and the potential unsafe conditions it was causing. Staff performed a site inspection two days later. One entrance was found to be unsatisfactory. Staff documented the observation, and in an email sent to the Project Manager on December 22, 2022, requested Big Plain to share how it planned to remedy the situation. Staff was not made aware of any additional action taken by Big Plain at that location.

On January 18, 2023, Staff was notified by the Engineer that Big Plain was creating unacceptable roadway conditions due to mud being tracked onto the roads adjacent to the project by vehicles entering and exiting the site. The Engineer supplied photographic evidence of the roadway conditions to Staff. Also, the Engineer notified Big Plain it was in violation of the Road Use Maintenance Agreement. The Engineer, in cooperation with the Madison County Administrator, proceeded to notify the Madison County Sheriff. The Sheriff pledged to maintain a presence in the vicinity of the project and cite vehicles for roadway safety violations. According to the Engineer and Sheriff, the Project was using motorized brooms, which contributed to creating a sheen of mud on the surface of the road and to the buildup of berms on the shoulders which caused concerns of impounding storm water runoff. In response, Big Plain deployed pressure washing street sweepers to clean the roadway surface, used a vac truck to remove the berms of soil from the shoulder of the roads, re-graveled entrances to the site, and moved wheel washing sites to more suitable locations. Staff and the Engineer were satisfied with roadway conditions when inspecting the site on February 15, 2023, and during another Staff inspection on March 10, 2023.

Recommendations

Staff requests Big Plain file for review a mitigation plan to Staff by 5:00pm Friday, April 14, 2023 to address the concerns identified in issues 1 through 6. As part of the mitigation plan, Staff requests that Big Plain include a projected timeline for the resolution of each issue. Staff will continue to monitor the mitigation response throughout the duration of the timeline and file status updates to the Board on a to-be-determined interval basis. Failure to comply with Staff's recommendation for filing the mitigation plan may result in Staff filing a motion with the Board for consideration of formal action regarding the Certificate compliance issues described in this report.

Eric Morrison

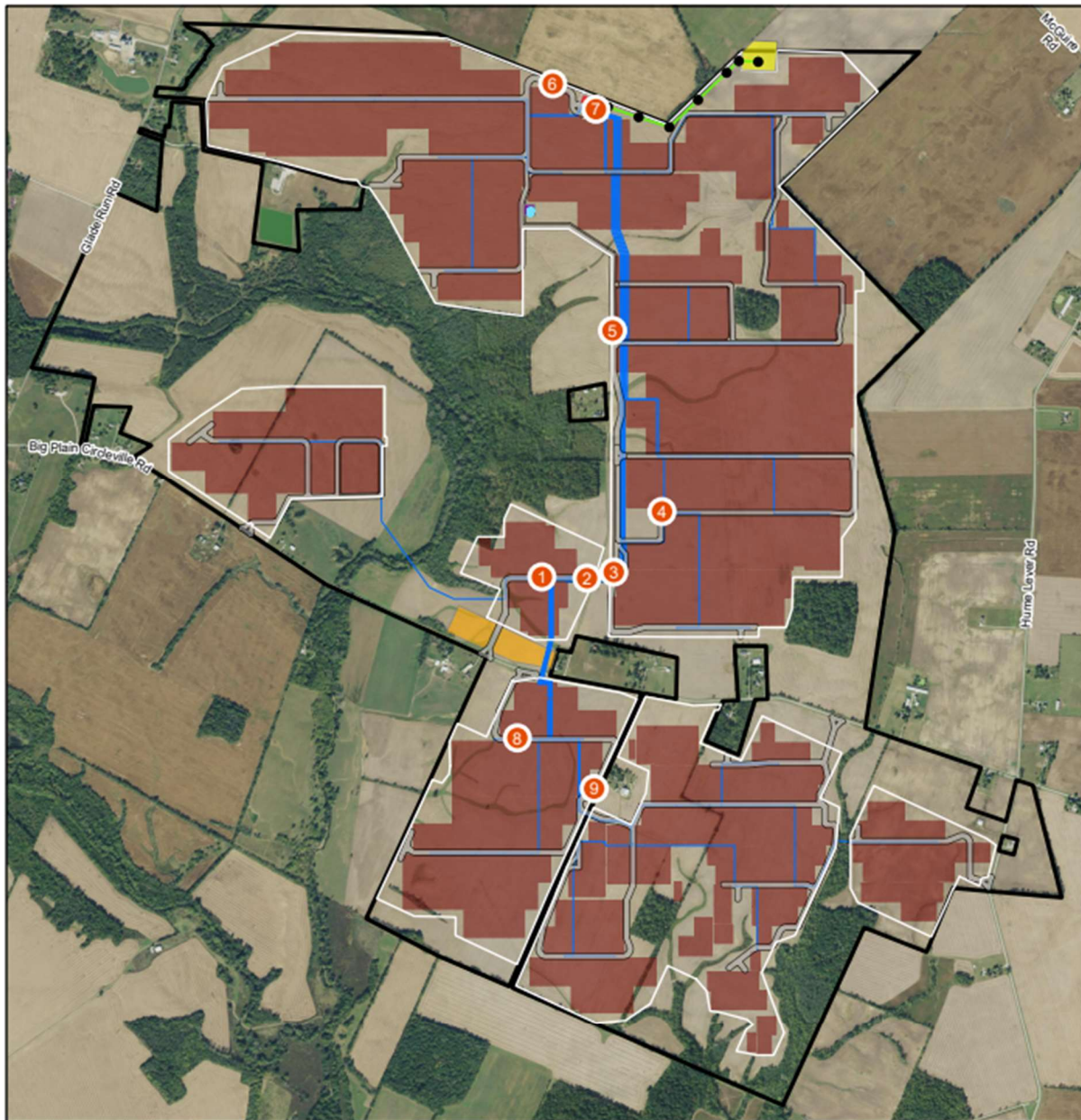
Public Utilities Commission of Ohio
Power Siting Department
Field Compliance Investigator

Attachment(s)

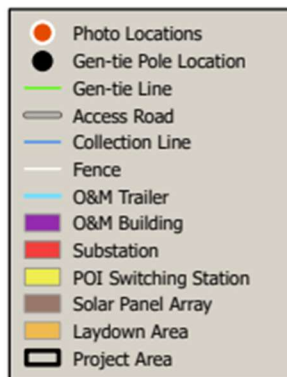
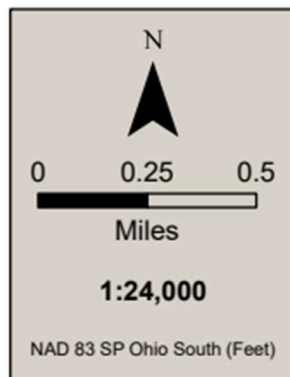
1. Reference Map
2. (9) Staff Photos 02/15/2023

CC:

- John Jones, Ohio Attorney General's Office
- Matthew Sandor, Administrative Law Judge
- Patricia Schabo, Administrative Law Judge
- Bryan Dhume, Madison County Engineer
- John Swaney, Madison County Sheriff
- Rob Slain, Madison County Administrator
- Norman Spooner, Leeward Renewable Energy
- Michael Settineri, Vorys



Madison County



Overview Map

19-1823-EL-BGN

**Big Plain Solar
Compliance Inquiry Map**

Maps are presented solely for the purpose of providing a visual representation of the project in the staff report, and are not intended to modify the project as presented by the Applicant in its certified application and supplemental materials.

Location 1 Photograph c (1c)



Fugitive Dust, Impounded Water

Location 2 Photograph a (2a)



Fugitive Dust, Excessive Rutting

Location 3 Photograph b (3b)



Fugitive Dust, Impounded Water

Location 4 Photograph a (4a)



Fugitive Dust, Excessive Rutting, Construction Waste

Location 4 Photograph b (4b)



Fugitive Dust, Excessive Rutting

Location 5 Photograph a (5a)



Fugitive Dust, Excessive Rutting

Location 6 Photograph a (6a)



Fugitive Dust, Construction Waste, Excessive Rutting

Location 7 Photograph a (7a)



Fugitive Dust, Impounded Water, Excessive Rutting

Location 7 Photograph b (7b)



Fugitive Dust, Construction Waste, Excessive Rutting

Location 8 Photograph b (8b)



Fugitive Dust, Impounded Water, Construction Waste

Location 9 Photograph a (9a)



Fugitive Dust, Impounded Water

**This foregoing document was electronically filed with the Public Utilities
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Case No(s). 19-1823-EL-BGN

Summary: Report Compliance Inquiry Report electronically filed by Eric R Morrison
on behalf of OPSB Staff and Mr. Eric Morrison.