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October 28, 2021

***Via Electronic Filing***

Ms. Tanowa Troupe  
Administration/Docketing  
Ohio Power Siting Board  
180 East Broad Street, 11<sup>th</sup> Floor  
Columbus, Ohio 43215-3793

**Re: Dixon Run Solar, LLC, Case No. 21-768-EL-BGN**

Dear Ms. Troupe:

Attached for filing in the above-referenced case is Dixon Run Solar, LLC's Response to OPSB Staff's First Data Request dated October 19, 2021.

Please contact me if you have any questions.

Sincerely,

Dylan F. Borchers  
Kara H. Herrnstein  
Counsel for Dixon Run Solar, LLC

# Response to October 19, 2021, Data Request

## Dixon Run Solar Project

Bloomfield Township, Jackson County, Ohio

Case No. 21-0768-EL-BGN

Prepared by:



**SunEnergy1**

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Mooresville, NC 28117

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October 28, 2021

## **DIXON RUN SOLAR, LLC'S RESPONSE TO STAFF'S OCTOBER 19, 2021, DATA REQUEST<sup>1</sup>**

### **Project Description**

1. The height of the panels is described as 9.5 feet in Exhibit K (page 3), a range of 8 to 12 feet in Exhibit K (page 7), a maximum height of 9.5 feet in Exhibit K (Table 1, footnote 1), and 11.5 feet tall in Exhibit P (page 14). Please explain what the height (e.g., range) of the solar panel would be.

A conservative panel height of 11.5 feet was used in the Visual Resource Assessment (Exhibit P), as this study was completed before the final panel height was determined. The maximum height of panel rack is 9.5 feet. With three 8-foot panels stacked perpendicularly to the racking at a 15-degree angle, this creates a height of approximately 6.2 feet. The ground offset will be approximately 2.75 feet, resulting in a total height of up to 9.5 feet.

### **Exhibit K (Glare Analysis)**

2. Referring to Exhibit K (Table 1, footnote 1), please explain why 9.5 feet was chosen and why it is an appropriate value for the solar panel height input into the SGHAT.

See response to question 1.

### **Manufacturer Information**

3. Does Dixon Run Solar, LLC anticipate using more than one solar panel manufacturer for this project?

No, The Applicant does not anticipate using more than one solar manufacturer for this project.

### **Aviation**

4. In accordance with Ohio Adm.Code 4906-4-07(E)(1), please provide confirmation that the owner(s) of the James A. Rhodes Airport has been notified of the proposed solar facility and any impacts it will have on airport operations.

The Applicant notified a representative of the James A. Rhodes Airport about the proposed project, both verbally and by email. Correspondence is included as Attachment 1.

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<sup>1</sup> Dixon Run intends to file an amended project layout and is currently preparing to file all necessary updates to the Application. The responses to these data requests are consistent with the updated layout.

## Electric Grid

5. On page 9 of 10 of the System Impact Study for AC1-188 shows the switches connecting the Solar Facility to the Rio Substation as Normally Open; under what conditions or circumstances would these be closed?

The Dixon Run generation facility would not be involved in PJM or AEP operational decisions regarding opening and closing of devices. Therefore, the Applicant does not know which conditions or circumstances where AEP or PJM would close the switches.

6. Similarly, for the Rodney Switch to the Addison Substation, when would the Rodney Switch be closed?

See response to question 5.

7. On page 6 of 17 of the Feasibility Study Report for AF2-048 states "previous queue position AC1-088"; should this be AC1-188?

Yes, that should read AC1-188, this was a typographical error.

## Wind Velocity, Ohio Adm.Code 4906-4-08 (A)(6)

8. Please provide a tabulation of the wind velocities for the Jackson County region of the facility and the probabilities or frequencies of their occurrences.

Rule 4906-4-08(A)(6) of the Ohio Administrative Code requires an analysis of high wind velocities in the vicinity of the project area. To address this requirement, the Applicant retrieved wind velocity data from the National Centers for Environmental Information (NCEI), a division of the National Oceanic and Atmospheric Administration (NOAA). NCEI hosts daily weather data, including wind velocity, from weather stations across the United States. For this analysis, wind velocity data from 2020 was collection from three stations: James A. Rhodes Airport (1.9 miles from Project Area), Point Pleasant Mason County Airport (21.7 miles from Project Area), and Ohio University Airport Snyder Field (19.8 miles from Project Area). These weather stations are the nearest stations to the Project Area, and therefore provide the best available data to represent wind velocities in the area.

The data collected included wind velocity measured at 20-minute intervals throughout the day. The maximum recorded wind speed for each day was extracted at each station. Below is a summary table showing the highest recorded wind speed at each station.

### Wind Velocity Summary, 1-1-2010 through 12-31-2020 (MPH)

	Maximum Wind Speed Recorded (MPH)
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<b>James A. Rhodes Airport</b>	31.1
<b>Point Pleasant Mason County Airport</b>	27.7
<b>Ohio University Airport Snyder Field</b>	36.9

The full data set and a map of weather stations are included as Attachment 2.

**9. Will there be a stow mode for the panels?**

No, this project will use a fixed tilt system, therefore stowing is not applicable.

**10. Please identify the parts or components of the installation that has the rugged design which enables the 175-mph wind load?**

This rating is not applicable; however, the racking hardware grades and the strength and spacing of the ground-imbedded support posts are designed to withstand specific site criteria.

This project will be designed using the recommended Wind Loading from ASCE 7-16 Standard, which is at maximum, 100 mph.

**11. What loads or forces would be expected on the panels, racking, pilings, and tracking mechanisms for various wind velocities? What stresses would be induced in these various components and how do these stresses compare to the maximum allowable stresses of the panels and supporting structures.**

Axial, horizontal, and lateral stresses are transferred into the racking components (racking structure, posts, hardware) and absorbed by these components. The maximum allowable stress is engineered to a 1.5 factor of safety above measured loads from geotechnical investigations, mechanical pull tests, and structural analysis of racking components designed by an Ohio licensed professional structural engineer.

**12. Please indicate any Wind Loading precautions or wind equipment ratings that will be included in the final project design.**

See response to questions 10 & 11.

**13. What is the wind velocity that would create the 2,400 pascal (0.348 psi) pressure differential on the panels?**

See response to questions 10 & 11.

**14. What would be the wind velocity that would cause the panels to become separated from the tracking system and support structures?**

A minimum of 150 mph, using a 1.5 factor of safety.

## **Water Conservation Practice**

- 15. Will the onsite O&M facility, that consists of storage containers, require an onsite water supply or sanitary wastewater system?**

No, the O&M facility will only be used for storage. Onsite water supply or sanitary wastewater system will not be required as O&M personnel will only be on-site as needed and will primarily work remotely.

## **Ecological**

- 16. Please provide a complete table of contents for Exhibit I.**

A table on contents for Exhibit I is included as Attachment 3.

- 17. Please provide a Google Earth (e.g., KML, KMZ) file of the project.**

KMZ provided to Staff on October 28.

- 18. Please provide the ODNR response(s) to the August 13, 2021, request for environmental review for the Dixon Run Solar Project.**

The ODNR response letter is included as Attachment 4.

- 19. Referring to Exhibit I (Attachment E, Wildlife Observations), the Application states "Most of the Study Area lacked significant characteristics of habitat for threatened or endangered species known to inhabit Licking County." Please confirm that this statement should say Jackson County, and confirm that the statement is still correct despite the correction?**

Yes, that should read "Jackson County", this was a typographical error, and the statement is still correct with the correction.

- 20. Will Dixon Run Solar, LLC disturb any caves or abandoned mines in the project area? If not, what are the limits of disturbance around the caves and abandoned mines onsite?**

Open abandoned mine entrances and caves were not observed within the Ecological Study Area during the field survey. Three cave features were observed outside of the Ecological Study Area (Figure 13). Figure 13 has been revised to show these features on aerial background and in relation to the proposed site layout.

- 21. Where will Dixon Run Solar, LLC be incorporating pollinator friendly habitat once installation of the solar panels is complete?**

The Applicant plans to use native seed mixes and native vegetation to restore disturbed

areas and to lessen the visual impact. The Applicant does not plan to use pollinator species on this project at this time.

**22. Please provide a figure depicting the extent of forest habitat to be impacted by the project.**

Vegetation clearing area figures are included as Attachment 5.

**23. In Table 08-7 of the Application on page 99, is the proposed clearing of 125 acres of trees included in acreage of permanent impacts to Agricultural land use?**

Yes, this area would be included in the total land use impact calculations, shown on Table 08-7 in the Certificate Application. Note that the acreage has changed slightly and is now approximately 159 acres.

**24. In Exhibit I (Surface Water Delineation Report), Hull & Associates presents Figures 1 through 8 with an overlay of the ecological study area. Please submit these same Figures 1 through 8 with an overlay of the project area which includes but is not limited to depicting the solar panels, electric collection lines, collector substation, O&M building.**

Figures 1 through 8 of the Surface Water Delineation Report have been recreated to include an overlay of the proposed site layout. These figures are included as Attachment 6.

**25. In Exhibit I (Attachment G, Additional Mapping), Hull & Associates presents Figures 5 through 7 and 9 through 15 with an overlay of the ecological study area. Please submit these same figures with an overlay of the project area which includes but is not limited to depicting the solar panels, electric collection lines, collector substation, O&M building.**

Figures 1 through 15 of Attachment G, Additional Mapping have been recreated to include an overlay of the proposed site layout. These figures are included as Attachment 7.

**26. In Exhibit I (Attachment G, Additional Mapping), Hull & Associates did not present Figures 1 through 4 or Figure 8. Please provide these figures to Staff.**

Figures 1 through 15 of Attachment G, Additional Mapping have been compiled in their original form since some of these figures were missing from the initial submittal. These figures are included as Attachment 8.

## USFWS

27. Referring to Exhibit I (USFWS letter dated 9/10/2021 from Patrice Ashfield to Helena Hayter), that letter states "Please provide additional information on the extent and location of tree clearing proposed. We will then evaluate the potential impact to Indiana bats to determine if a summer survey is warranted, or if seasonal clearing (removal of trees between October 1 and March 31) is sufficient to avoid take." The USFWS has indicated to Staff that no additional information on the extent of tree clearing has been provided to date.

- a. Please explain the status of this additional information and when it would be provided to USFWS and Staff.

On 10/26/21, additional figures were sent to Jennifer Finfera with USFWS illustrating the extent of tree clearing necessary for the project, as was requested by Patrice Ashfield on 09/10/21. Jennifer Finfera responded 10/27/21 requesting additional information on the proximity of streams, wetlands, caves, and rock outcroppings as they pertain to the project's limits of disturbance. This information was provided the same day.

The applicant is prepared to adhere to tree clearing recommendations or perform ecological surveys if so required. This is not the expectation based on the absence of open abandoned mine entrances or cave features within the Ecological Study Area.

- b. Please submit to Staff any project specific recommendations from USFWS for federally listed bats

The Applicant is waiting on a response from USFWS regarding project specific recommendations as they pertain to endangered bat species.

28. Page 81 of the Application states, "Approximately 125 acres of tree clearing is anticipated, the exact extent of clearing of these areas is contingent on the final Site Plan, and final areas requiring tree clearing will be noted on the Site Plan. Potential impacts to wildlife and their habitat are anticipated to be minimal, and the Applicant plans to adhere to USFWS and ODNR regulations to avoid/minimize impact to ecological resources." The USFWS has indicated to Staff that at this time it does not have sufficient information to agree with that statement. The USFWS requires additional information, specifically maps indicating:

- a. where trees will be cleared and the acreage of impacts in each area.
- b. the forested areas to be impacted should also indicate the presence of streams, wetlands, caves, and rock outcroppings.



- c. **USFWS advises that if large or high-quality forested areas are proposed to be cleared, summer surveys may be necessary to conclude that take of listed bats is not likely to occur. Please explain and denote on a map if large or high quality forested areas are proposed to be cleared and include any summer survey results?**

This Applicant has provided this information to USFWS and is awaiting a response.

- 29. Referring to Exhibit I (Attachment G, Additional Mapping, Figure 13) the legend for Figure 13 indicates "Karst – Field Verified", "Karst – Suspect -Field Visited" and "Karst – Suspect – Not Visited" which appears to represent the statements from page 69 of the Application which indicates ODNR online mapping does not indicate karst features in the project area. Please confirm that there were no karst features within the ecological study area that Dixon Run Solar, LLC or its consultant Hull & Associates, LLC field verified, suspected-field visited, suspected-field visited, and suspected-not visited.**

There were no Karst features observed within the ecological study area. There were three caves noted outside the ecological study area. The cave features appear to be sandstone ledges. Sandstone is the typical ridge former in this part of the state. Sandstone, as do many other rock types, can form caves but these are rock ledges formed where less resistant underlying bedrock (e.g., shale) has been eroded out, they are not solution features related to Karst. Karst terrain/topography is typically formed in limestones, dolomite or other evaporite rocks that tend to dissolve naturally from weak acids formed by rainwater percolating through the soils. Karst topography is defined by depressions, sinkholes, and sinking streams that disappear underground, etc.

- 30. Referring to Exhibit I (Appendix E, Ecological Study Area Photographs), the photographs Nos. 7 through 12, show rock outcrops. USFWS indicates that these areas may provide suitable hibernation habitat for listed bats and the location of these resources is critical. USFWS advises that any impacts are proposed in or near these rock outcrop areas may require hibernating bats surveys. Please provide any such surveys to Staff.**

Surveys for hibernating or roosting bats have not been completed for the site. No cave features were observed within the Ecological Study Area. Photos 7 through 12 incorrectly describe the cave features as being within the Ecological Study Area. Correspondence has been initiated with the USFWS with regards to the location of these features and proposed site layout of the project. Figure 13 has been revised to show these features on aerial background and in relation to the proposed site layout.

**This foregoing document was electronically filed with the Public Utilities  
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**Case No(s). 21-0768-EL-BGN**

Summary: Text Dixon Run Solar LLC's Response to First Data Request  
electronically filed by Ms. Megan Zemke on behalf of Borchers, Dylan F