

# **Response to First Set of Staff Data Requests**

**Case No. 20-1760-EL-BGN**

## **Juliet Solar Project**

**Milton and Weston Townships and the Village of Weston  
Wood County, Ohio**



### **Juliet Energy Project, LLC**

a wholly-owned subsidiary of 7X Energy, Inc.

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**May 5, 2021**

1. Please describe and provide an assessment of potential impacts from the facility for Michael Merrill Park and Old Schoolhouse Park. Section 4906-4-08(D)(3) (pg 86-87)

Answer: Aside from limited, potential visual impacts, no other impacts to the Michael Merrill or Old Schoolhouse parks are expected. Potential visual impacts from the Facility to these parks are addressed in Section 2.1.3 and Appendix E of the Visual Resource Assessment (Exhibit P). Based on the viewshed analysis conducted for potential visibility of the PV panels and collection substation, partial visibility of the Facility from the Michael Merrill Park is anticipated. More specifically, the Michael Merrill Park will have intermittent Project visibility primarily from Taylor Street, which runs east-west just north of the park. However, existing vegetation and residential and civic development will obscure most views of the Project. No visibility of the Facility is anticipated from the Old Schoolhouse Park.

2. The application on page 21 states: “The Facility layout presented in this Application is considered 30% complete.” Which facility components can be attributed to this 30 percent of the total facility layout? Does the applicant consider the location of any facility components to be complete/final at this time?

Answer: As stated on page 2 of the Application, the 30% design is a preliminary design that includes a general Project site boundary, location of module racking, and the relative location of inverters substations, collection lines, and access roads, all of which are depicted in Figure 03-2. Final Facility design is dependent on many factors including final selection of PV panel make/model, market conditions, and selection of the EPC. Final Facility design will be determined by the EPC and will be submitted to the Board’s Staff at least 60 days prior to the start of construction. The fenceline presented in the Application will not be expanded.

3. The table under paragraph 11.3, ‘Contribution to Previously Identified Overloads’, Page 12/20 of the PJM SIS, lists a “bus” as the type of component in the first line of results that may overload, but it is given the “ID” 43720294 (which seems to be a Line or Breaker ID) and it is extending from bus #243009 to bus #243008; please clarify if this component is truly a bus or could it be a Line or Breaker.

Answer: The component is an approximately 4-mile line. See section 11.6 under upgrade description, the reference to the bus or breaker is referencing the contingency which drives the overload on this line. See response to question 5 for more detail on this item.

4. Please explain what upgrades or accommodations will be made to avoid the Overload on the Bus and Breaker identified by PJM on page 12/20 of their SIS for AF1-064.

Answer: See answer to question 5; the first step is to perform a sag study.

5. The PJM SIS studies for AF1-064 (page 13/20) and AF2-126 (page 14/24) state that a ‘Sag Study’ will be required on four miles of the interconnection. Please explain who will be doing the Sag Study, and the cost and extent of the implementation of the anticipated results.

Answer: The sag study will be performed by AEP through the interconnection study process. The sag study cost is \$20,000 and will be funded using the Facility Study deposit of the generation project which is first to cause on this overload (not Juliet Solar). If the sag study indicates no mitigation is required, then no further action is necessary. If the sag study indicates that upgrades will be required, then these costs will be the responsibility of the project that is “first to cause” (not Juliet solar). The contribution of Juliet Solar on this overload is below the threshold requiring a cost contribution to this upgrade.

6. Is there a typo in the bottom line of page 24/110 of the Application which references Exhibit ‘G’ for Interconnection studies, rather than Exhibit ‘I’? Exhibit ‘G’ seems to be titled “Noise Assessment”.

Answer: Yes, the reference to Exhibit G is a typo. The PJM interconnection studies were included as Exhibit I to the Application.

7. Page 19/110 of the Application says irradiance will be 3.85 W/m<sup>2</sup>, please confirm that is not 3.85 kW/m<sup>2</sup>.

Answer: That is a typo. 3.85 kW/m<sup>2</sup> is the average daily horizontal global irradiance.

8. How many parcels with agricultural district land will be impacted and taken out of service by the project?

Answer: The Project Area includes 31 parcels that are registered with the agricultural district program, according to data provided by Wood County in December of 2020. The number of parcels removed from the agricultural district program would be dependent on the final design of the project and in accordance with Chapter 929 of the Revised Code.

9. What is the current status of the Applicant’s cultural resources investigation? Provide a projected schedule for final field work, completion of consultant’s reports to SHPO and anticipated final coordination with SHPO.

Answer: All cultural field work has been completed. The Cultural Resources Work Plan was submitted to SHPO and approved on December 30, 2020. The Archaeology Report was submitted to SHPO on February 24, 2021 with two areas recommended for avoidance; concurrence was received from SHPO March 23, 2021. Both the Work Plan and the Archaeology report were provided as part of the application to the OPSB on March 12, 2021 as Exhibits F and R, respectively. The Historic Architecture Report was submitted to SHPO on March 29, 2021; concurrence was received from SHPO April 28, 2021. The Architecture report will be submitted to the OPSB in early May. Currently, Juliet Energy Project, LLC is drafting an MOU; once finalized, it will be submitted to the OPSB.

10. What is the estimated total cost to decommission Juliet Solar Farm excluding the salvage value of the solar equipment?

Answer: This cost is estimated at \$5.8 million.

11. What is the estimated salvage value estimate of the solar equipment?

Answer: The estimated salvage value of the solar equipment is \$2.8 million based on today's commodity value.

12. Please fully explain what financial assurance mechanism Juliet Energy Project, LLC will employ, and when the funds will be available to perform decommissioning activities. Staff would recommend that the decommissioning funds be posted in the form of a performance bond where the company is the Principal, the insurance company is the Surety, and the Ohio Power Siting Board is the Obligee.

Answer: The decommissioning financial assurance mechanism will include a letter of credit or a performance bond where the company is the Principal, the insurance company is the Surety, and the Ohio Power Siting Board is the obligee. At least three years prior to the earlier of the termination of any Facility Power Purchase Agreement or the end of the operational life of the Facility, Juliet will post and maintain a letter of credit, surety bond or similar financial assurance instrument in that amount for the removal of the Facility. If a subsequent calculation of the decommissioning cost increases or decreases, the financial assurance instrument will be increased to a higher amount.

13. Referring to page 1 from Exhibit K (*Decommissioning Plan*), Juliet Solar Energy, LLC anticipates complete equipment removal of above ground solar equipment within 6 months and that monitoring and site restoration may take longer. Please confirm the timeframes and explain when the monitoring and site restoration will be complete.

Answer: Up to 6 months is the anticipated timeframe for equipment removal. This time is dependent upon weather and unforeseen conditions which may increase the duration. The site restoration timeframe will vary due to the limited growing season and when planting can be established. We anticipated it could take up to a year due to the variance in the growing season for site restoration and monitoring.

14. Referring to Table 1 from Exhibit K (*Decommissioning Plan*), there appears to be no line item for monitoring and site restoration, will this be included in the final decommissioning plan?

Answer: Yes, it will be included in the final decommissioning plan.

15. Referring to page 1 from Exhibit K (*Decommissioning Plan*), Juliet Solar Energy, LLC states that decommissioning activities will begin within 12 months of the facility ceasing operation. Please explain why there would be a delay to before initiating equipment removal after operations ceasing.

Answer: We included up to 12 months to allow time for planning, bidding out the work, permitting, and potential weather delays.

16. Please explain how Juliet Energy Project, LLC will, during the detailed engineering phase, minimize any potential damage from high wind velocities by proper structural

design of the project support equipment at sufficient depths based on the site-specific soil conditions to preclude any adverse influence from high wind velocities.

Answer: During detailed design, the project will contract with a licensed structural engineering firm to complete the structural design and engineering of the project. A licensed Ohio Professional Engineer (PE) will be the EOR (Engineer of Record) for the structural drawings and calculations and include PE stamping for the final issued for construction drawings. The EOR completes their design to comply with standard ASCE 07-16 taking into account design wind speed and operation design speed conditions for the specific site, pile load testing data from the project Pile Load Testing Report, and geotechnical results/data from the project Geotechnical report.

17. Please indicate any wind loading precautions or wind equipment ratings that will be included in the final project design.

Answer: The Engineer of Record will design the structure according to standard ASCE 07-16 Risk Category I design wind speed of 100 mph. The tracker will also include a set stow function to tilt the modules in a safe position in the event of high winds.

18. Do the trackers under consideration have a stow mode?

Answer: Yes, under specific high wind and snow set parameters, the trackers will stow at a programmed safe angle.

19. Referring to page 40 of the Application, what is the approximate limited volume of water that would be required to clean the solar farm?

Answer: Panel cleaning on the site is not expected since normal precipitation will clean the panels. However, there may be some unexpected conditions (significant dirt storms, unprecedented droughts) where limited water is anticipated for cleaning the solar panels. The estimated volume of water in these exceptional conditions varies widely due to the cleaning operation, but no more than 300,000 gallons is expected per event, using even the most water intense cleaning operation/procedure.

20. Referring to Figure 4 in the *Geology and Hydrogeology Report* (Exhibit C), how many water wells are within the project area?

Answer: As shown on Figure 4, there are five water wells that are within the project area. However these wells fall outside or on the fence line of the design submitted with the application. In addition, responses to the well survey completed by Hull indicated that only one of these wells is in active use.

21. What is the distance between the solar farm equipment and nearest water well within the project area?

Answer: For the final design, the project fence line will exclude encompassing any active water wells and the edge of the project fence will be at least 10 feet from the edge of any active water well.

22. Please explain what avoidance, minimization, and/or mitigation measures Juliet Energy Project, LLC will employ during construction for water well locations in the project area.

Answer: The project plans to avoid the identified wells by marking them with flagging and temporary protection.

23. Exhibit C (Geology and Hydrology Report by Hull and Associates) should be revised to include analysis of the soil borings documented in Attachment L (Preliminary Test Boring Logs by Terracon). These findings should supplement the Applicant's determinations of both geologic and soil suitability of the subject site.

Answer: Please see the attached "Hull Geotechnical Addendum 5 4 2021."

24. Page 12 of the application indicates approximately 9.3 miles of new access roads will be needed within the project area. Page 1-5 Part 1 of 4 of Exhibit E (Ecological Assessment) indicates up to 4.66 miles of access roads would be needed as part of the project infrastructure. Please clarify the mileage of land that will be impacted be either temporary or permanent access roads.

Answer: The preliminary Facility layout includes 4.66 miles of access road. Impact calculations included in the Application remain accurate, as 4.66 miles of access road was used for those calculations. The reference to 9.3 miles of access roads on page 12 of the Application is an error.

25. Does the Applicant intend to conduct any site-specific pile load testing to be included for consideration with the final engineering design proposal?

Answer: Yes, site specific pile load testing will be included with the final engineering design.

26. Does the Applicant intend to conduct any site-specific resistivity testing to be included for consideration with the final engineering design proposal?

Answer: Yes, site specific resistivity testing will be included with the final engineering design.

27. Page 53 of the application indicates additional geotechnical testing (borings) may be conducted for very site-specific engineering considerations, but there are no intentions to provide that data to OPSB Staff as the results are not expected to alter the placement of Facility components. Plans for any test borings should be provided in accordance with Ohio Administrative Code Rule 4906-4-08 (A)(5)(c). The resulting data and interpretation should supplement the final engineering design to be presented to OPSB Staff at least 30 days prior to the preconstruction conference.

Answer: The plan for test borings is included as Attachment F to the Geology and Hydrogeology Report (Exhibit C). Juliet will provide the results of additional geotechnical testing to OPSB Staff at least 30 days prior to the preconstruction conference.

**This foregoing document was electronically filed with the Public Utilities**

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Summary: Response of Juliet Energy Project, LLC to Staff's First Set of Data Requests  
electronically filed by Teresa Orahoud on behalf of Elyse Akhbari