

COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION
AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF BARRELHEAD)	
SOLAR, LLC FOR A CERTIFICATE OF)	
CONSTRUCTION FOR AN APPROXIMATELY 54-)	CASE NO.
MEGAWATT MERCHANT ELECTRIC SOLAR)	2024-00177
GENERATING FACILITY IN WAYNE COUNTY,)	
KENTUCKY PURSUANT TO KRS 278.700 AND)	
807 KAR 5:110)	

SITING BOARD STAFF'S SECOND REQUEST FOR INFORMATION
TO BARRELHEAD SOLAR, LLC

Barrelhead Solar, LLC (Barrelhead Solar), pursuant to 807 KAR 5:001, shall file with the Commission an electronic version of the following information. The information requested is due on January 5, 2026. The Siting Board directs Barrelhead Solar to the Kentucky Public Service Commission's July 22, 2021 Order in Case No. 2020-00085¹ regarding filings with the Commission. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

Each response shall include the question to which the response is made and shall include the name of the witness responsible for responding to the questions related to the information provided. Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC July 22, 2021), Order (in which the Commission ordered that for case filings made on and after March 16, 2020, filers are NOT required to file the original physical copies of the filings required by 807 KAR 5:001, Section 8).

person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Barrelhead Solar shall make timely amendment to any prior response if Barrelhead Solar obtains information that indicates the response was incorrect or incomplete when made or, though correct or complete when made, is now incorrect or incomplete in any material respect.

For any request to which Barrelhead Solar fails or refuses to furnish all or part of the requested information, Barrelhead Solar shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied or scanned material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, Barrelhead Solar shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Provide, in detail, the communication and contact that Barrelhead Solar has had with the owners of the residential structures within 2,000 feet of the Project boundary line in regard to the construction of this project.

2. Provide the noise level for the residences during peak construction for those nearest nonparticipating residences identified as being nearest to the fencing, closest solar panel, closest inverter and both substations.

3. Provide a chart with the expected noise level during pile driving at each noise receptor within 1,500 feet of the project boundaries.

4. Refer to Barrelhead Solar's response to Siting Board Staff's First Request for Information (Staff's First Request), Item, 49. During the site visit, it was confirmed that R-15 is a non-participating residence requiring a structure setback. The Applicant additionally noted that the proposed access road route near the southern laydown area was cut-off. Provide a revised preliminary site layout with corrections.

5. Refer to the Site Assessment Report (SAR), Attachment G, Decommissioning Plan. Provide a revised Decommissioning Plan with all tables updated for currently proposed Project components, quantities, and lengths. Include the decommissioning changes discussed during the site visit, such as the removal of the collector substation (substation, fencing, and overhead line), changes to length of access roads, and non-removal of the East Kentucky Power Company owned switching substation and security fencing. Include in the response a revised Decommissioning cost estimate, as necessary.

6. Provide the estimated maximum construction sound level or the maximum potential construction sound for all receptors that are 500 feet away from project components (i.e., fence, panel, inverter, substation, BESS).

7. Describe any specific measures to be taken to reduce noise impacts for nearby residents during construction.

8. Provide the anticipated start date and end date of construction.
9. All other qualifications for the positions being equal, explain whether Barrelhead Solar intends to hire as many local workers for the construction and operation phases of the project as possible. If so, include how Barrelhead Solar intends to accomplish that.
10. Detail any communications with members of the public, including neighboring landowners, regarding construction noise.
11. Explain, in detail any communication that have occurred with the nonparticipating landowners who are in close proximity to any of the proposed access roads.
12. Explain any plans to coordinate with local landowners or others in case of complaints or other issues that might arise during the construction or operations.
13. Provide the expected percentage of construction traffic that will utilize each of the construction site entrances. Include in the response separate percentages for delivery traffic and commuting worker traffic by entrance. If this is expected to change during different phases of construction, break the percentages down by construction phase.
14. Refer to SAR Appendix I, Traffic Impact Study. During the site visit, it was confirmed that Pleasant Ridge Road will likely be utilized for Project deliveries, including the substation transformer. Provide a revised Traffic Impact Study inclusive of Pleasant Ridge Road.
15. Provide Sight Distance Studies for the following intersections:
 - a. Massingale Rd and KY 1009/Walnut Grove Road.

- b. The main Project entrance (on KY 1009) and KY 1009;
- c. Pleasant Ridge Rd and Massengale Rd (near R-22).

16. Confirm whether the residence at 1689 Massingale Road (R-17) is a non-participating home. If not confirmed, provide a corrected list of participating parcels.

17. Confirm whether the agricultural barn to the north of that residence are owned by the Bertrams. If not confirmed, provide the name of the landowner.

18. Explain whether a power purchase agreement has been finalized. If not, provide a timeline for drafting and finalizing a power purchase agreement.

19. Provide information on the anticipated impact that fugitive dust will have on the project.

20. Provide any updates to vegetative screening plans.

21. State the number of years it will take for planted trees and shrubs to reach mature height.

22. Provide information on whether there will be an erosion and sedimentation control plan for the project. If so, provide the plan.

23. Explain any commitments regarding infrastructure removal or land restoration during decommissioning, including in the landowner lease agreements.

24. Provide the name of the company that will employ the individuals that are or will be responsible for ensuring compliance with the statements in the Application, as well as any conditions imposed by the Siting Board during construction and operation of the project.

25. Explain whether Barrelhead Solar will pursue an Industrial Revenue Bond or PILOT with Wayne County.

26. Provide a parcel map for the proposed site. Include all residences within 500 feet of the proposed project site. Include whether the residences are participating or non-participating homes.

27. Refer to Barrelhead Solar's motion for deviation from setback requirements (motion for deviation).² Provide a parcel map for each Neighborhood 1 and Neighborhood 2 that were discussed in Barrelhead Solar's motion for deviation. For each parcel identified provide the total acreage and whether the parcel has a residential structure on the land. If there is a structure on the parcel explain the structure's design, historical use, and current condition.

28. Refer to Barrelhead Solar's response to Staff's First Request, Item 27. Provide a detailed table for each of the parcels stating the distance measurement in feet (not meters) from each structure to the items listed below:

- a. The distance to the boundary line.
- b. The distance to the closest solar panel.
- c. The distance to the nearest inverter.
- d. The distance to the substations.

29. Provide a table with the distances from the nearest nonparticipating residence (dwelling not property line) to the following:

- a. Fencing.
- b. Closest solar panel.
- c. Closest inverter.

² Barrelhead Solar's Motion for Deviation From Setback Requirements (Motion for Deviation) (filed Nov. 12, 2025).

d. Substations.

30. Provide a narrative description of the proposed transmission line and alternate route, including the number of poles to be installed, the height of the poles and the length and width of the transmission line corridor.

31. Explain how the proposed transmission route was determined.

32. Provide a map showing the existing property lines that the proposed transmission line is proposed to cross.

33. Provide information on all electric transmission lines that intersect the project. Include in the response the owner, voltage, status, and right-of-way (ROW) setbacks.

34. Detail any communication with the residences closest to the proposed substation location.

35. Explain whether vegetative clearing will be required to accommodate the proposed 100-foot-long transmission line. If yes, provide the anticipated acreage of vegetative clearing and any permits that will be required.

36. Explain how the proposed route of the electric transmission line will minimize significant adverse impact to the scenic assets of Kentucky.

37. Provide a detailed map of the proposed transmission line route and the alternate route, including proposed pole locations, access roads and nearby residences.

38. Provide any sketches of the proposed transmission line support structure.

39. Provide a table showing the distance between transmission line structures (poles) and nearby residences, for the proposed route and the alternate route.

40. State the number of individual parcels and landowners participating in the Project, including the transmission line.

41. Provide the entity that will employ the individuals responsible for compliance with a certificate of construction during construction and operation of the project if granted.

42. Provide the entire corporate structure, or membership interests, of Barrelhead Solar.

43. Provide the entire corporate structure of Recurrent Energy, LLC, including the corporate parent of Recurrent Energy, LLC.

44. Of the residential homes that may have a view of the project, provide the number of them that are participating landowners.

45. Provide a detailed table listing all residential structures within 2,000 feet of the Project boundary line. Indicate whether the residential structures are participating or non-participating.

46. See Barrelhead Solar's response to Staff's First Request, Item 15. Indicate whether the residential structures are participating or non-participating.

47. Refer to the motion for deviation. For each neighborhood provide a table with the distance to the following:

- a. Fencing;
- b. Closest solar panel;
- c. Closest inverter;
- d. Substation.

48. Refer to the motion for deviation. For the closest residence (dwelling not property line) in each neighborhood provide a table with the distance to the following:

- a. Fencing;
- b. Closest solar panel;
- c. Closest inverter;
- d. Substation.

49. Provide a table with the distances from the nearest nonparticipating residence (dwelling not property line) to the following:

- a. Fencing;
- b. Closest solar panel;
- c. Closest inverter;
- d. Substations.

50. Refer to the motion for deviation. This motion does not align with other Project filings and statements during the site visit regarding screening plan for the southern part of the Project (see page 9), total vegetation clearing (see page 10), or description of public outreach (see page 13), and contains discrepancies in stated construction times (see pages 11 and 16). Explain whether the Applicant will be submitting a revised motion for deviation.

51. Provide which road is anticipated to be use for delivery of the project transformer and other substation equipment.

52. Provide the average gradient for areas where panels will be placed.

53. Refer to the SAR, Appendix G, Glare Analysis. Explain how the three identified road segments were evaluated, given the length of each roadway, i.e. at specific locations along each roadway or by individual small segments of roadway along the full length of the road.

54. Refer to the SAR, Appendix G, Glare Analysis. Refer to Table 2. Explain whether the glare modeled for KY 1009 from the Middle Top and Northeast 2 panel areas would impact the same location on KY 1009 at the same time (i.e., about 1,500 minutes of total yellow glare coming from the two different panel locations), or whether glare from the two panel locations would impact different areas along KY 1009.

55. Refer to the SAR, Appendix G, Glare Analysis. See Table 2. Provide a graphic identifying the specific segment of KY 1009 affected by yellow glare (identified as “between mileposts 9.4 and 10.5” in the glare analysis).

56. Refer to the SAR, Appendix G, Glare Analysis. See Table 2. Provide the maximum number of minutes of yellow glare per day on (1) KY 1009 and (2) Massingale Road.

57. Refer to the SAR, Appendix G, Glare Analysis. See Table 2. Provide the maximum number of minutes of yellow glare per day on (1) KY 1009 and (2) Massingale Road.

58. Refer to the SAR, Appendix G, Glare Analysis. Explain any safety concerns regarding yellow glare on Massingale Road, given that glare is anticipated to occur along Massingale Road “where it intersects with KY 1009”.

59. Refer to the SAR, Appendix G, Glare Analysis. See Table 6. Confirm that no yellow glare would be produced from the Northeast 2 or Main NW panel under the tracking array configuration. If not confirmed, explain the response.

60. Refer to the SAR, Appendix G, Glare Analysis. See Table 2 and Table 6 for a comparison of modeled results for KY 1009. Explain whether Table 6 indicates that

more yellow glare would be experienced along KY 1009 (2,302 minutes) from the Middle Top panels using the tracking arrays, as compared to the fixed arrays (1,557 minutes).

61. Refer to the SAR, Appendix G, Glare Analysis. Refer to Table 2 and Table 6 for a comparison of modeled results for KY 1009. Explain whether Table 6 indicates that yellow glare would be experienced along KY 1009 over a longer period of time (March through September) using the tracking arrays, as compared to the fixed arrays (March and September), from the middle top panels.

62. Refer to the SAR, Appendix G, Glare Analysis. See Table 6. Provide the maximum number of minutes of yellow glare per day on KY 1009.

63. Refer to the SAR, Appendix G, Glare Analysis. Confirm that, overall, the tracking array configuration would produce considerably less yellow glare than the fixed array configuration. If not confirmed, explain the response.

64. Refer to Barrelhead Solar's response to Staff's First Request, Item 46. Confirm the Applicant's statements during the site visit that the Project will not perform mowing operations on Sunday's. If not confirmed, explain the response.

65. Refer to Barrelhead Solar's response to Staff's First Request, Item 49. Provide the cumulative noise contour maps for construction and operation. Identify which pieces of construction equipment or Project components are included in the modeled results.

66. Refer to Barrelhead Solar's response to Staff's First Request, Item 56. Item 56 provides a series of visual renderings at several locations. Explain whether the "with Solar Panels" version of each location reflects the actual estimated distance to panels at that location.

67. Refer to Barrelhead Solar's response to Staff's First Request, Item 59. Figures 1 and 2 include a different total number of receptors and different numbering system for the receptors than shown in Figure 3. Explain these differences and provide revised Figures with consistent receptor numbering.

68. Refer to Barrelhead Solar's response to Staff's First Request, Item 46 and 59. The location for the 2,000-foot buffer and receptor numbering are inconsistent across the studies.

a. Provide a definitive map inclusive of all receptors within 2,000 feet of the Project boundary and marking the 2,000-foot buffer.

b. Include all participating and non-participating structures, residential and non-residential, with indicated receptor numbers and neighborhoods marked.

c. Revise the figures in the Noise Study and Visual Impact Study to match the definitive map, as needed.

69. Refer to Barrelhead Solar's response to Staff's First Request, Item 16. Provide the total number of poles by type that will be installed to facilitate the connection between the existing Upchurch Tap-Wayne County 69 kV line with the switching/interconnection substation.

70. Refer to Barrelhead Solar's response to Staff's First Request, Item 50. Item 50 states that approximately 13.5 acres of trees would be cleared from within the Project site. Explain whether and how many additional acres would need to be cleared if tracking arrays were used instead of fixed arrays.

71. Refer to Barrelhead Solar's response to Staff's First Request, Item 77 and Attachment F, Economic Analysis. The revised report simply states that the county can

expect at least \$1.6 million in property tax revenue over the life of the Project. Provide a detailed list of the estimated amount of total property tax revenue that would be generated for:

- a. Kentucky.
- b. Wayne County School District.
- c. Other Wayne County taxing entities with AND without an IRB/ PILOT

agreement.

72. Explain whether property taxes generated by the Project would be greater if using tracking arrays, as compared to fixed arrays.

73. Refer to Barrelhead Solar's response to Staff's First Request, Item 101. This response states that states that the overhead transmission line may only be 100 to 150 feet in length, as compared to the 0.65-mile length included in the Applicant's Decommissioning Plan. Provide the current estimate of the length of the overhead transmission line.

74. Confirm that in addition to the overhead line connecting the switching substation to the Upchurch Tap-Wayne County 69 kV line there will be an additional overhead line between the Project collector substation and the switching substation, as discussed at the site visit. If not confirmed, explain the response. Provide the length of the overhead line for the collector Substation and explain the plan for connection to the switching substation.



Linda C. Bridwell, PE
Executive Director
Public Service Commission *on behalf*
of the Kentucky State Board on
Generation and Transmission Siting
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DATED **DEC 18 2025**

cc: Parties of Record

Case No. 2025-00177

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