

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

In the Matter of:

ELECTRONIC APPLICATION OF WOOD DUCK	)	
SOLAR LLC FOR A CERTIFICATE OF	)	
CONSTRUCTION FOR AN APPROXIMATELY	)	
100 MEGAWATT MERCHANT ELECTRIC SOLAR	)	CASE NO.
GENERATING FACILITY AND NONREGULATED	)	2024-00337
TRANSMISSION LINE IN BARREN COUNTY,	)	
KENTUCKY PURSUANT TO 278.700 AND 807	)	
KAR 5:110	)	

ORDER

On May 19, 2025, Wood Duck Solar LLC (Wood Duck Solar) filed an application with the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board) seeking a Construction Certificate to construct an approximately 100-megawatt ground-mounted solar photovoltaic electric generating facility (Project) comprising approximately 2,259 acres of land in Barren County, Kentucky.

Intervention was granted to Nancy West (Intervenor) on July 11, 2025.¹ The Intervenor subsequently filed a motion to withdraw on August 1, 2025,² which was granted on August 22, 2025.³ Pursuant to a procedural schedule established on June 3, 2025, Wood Duck Solar responded to two rounds of discovery and filed three supplemental

¹ Order (Ky. Siting Board July 11, 2025).

² Motion to Withdraw (filed Aug. 1, 2025).

³ Order (Ky. Siting Board Aug. 22, 2025).

responses.⁴ A site visit was held on August 6, 2025. Siting Board consultant, Harvey Economics (Harvey), filed its report on September 15, 2025 (Harvey Report). Wood Duck Solar submitted its response to the Harvey Report on September 29, 2025. A formal hearing was held on October 2, 2025. Wood Duck Solar filed its post-hearing brief on October 9, 2025.⁵ Wood Duck Solar filed its responses to post-hearing requests for information on October 14, 2025.⁶ There have been more than 90 public comments filed in response to this application.⁷ On April 21, 2025, a representative of the National Park Service (NPS) submitted a public comment in opposition to the Project.⁸ In June of 2025, representatives of Wood Duck Solar met with representative of the NPS in relation to the Project's proximity to Mammoth Cave National Park.⁹ The matter now stands submitted for a decision.

LEGAL STANDARD

The filing requirements and standard of review for requests to construct a merchant generating facility are set forth in KRS 278.700 through KRS 278.718. KRS 278.704(1) requires that an application be filed with and approved by the Siting

⁴ Wood Duck Solar's Response to Siting Board Staff's First Request for Information (Staff's First Request) (filed July 28, 2025); Wood Duck Solar's Response to Siting Board Staff's Second Request for Information (Staff's Second Request) (filed Aug. 27, 2025); Wood Duck Solar's Supplemental Response to Staff's Second Request (filed Sept. 4, 2025); Wood Duck Solar's Second Supplemental Response to Staff's Second Request (filed Sept., 25, 2025); Wood Duck Solar's Third Supplemental Response to Staff's Second Request (filed Sept. 29, 2025)

⁵ Wood Duck Solar's Post-Hearing Brief (filed Oct. 9, 2025).

⁶ Wood Duck Solar's Response to Siting Board Staff's Post-Hearing Requests for Information (Staff's Post-Hearing Requests) (filed Oct. 14, 2025).

⁷ The Public Comments for this case are available at psc.ky.gov.

⁸ United States Department of the Interior Correspondence dated April 15, 2025, sent via electronical mail from Marcus H. Key and filed in Public Comments (filed Apr. 21, 2025).

⁹ Wood Duck Solar's Response to Staff's Second Request, Item 8.

Board before the construction of a merchant electric generating facility can commence. KRS 278.706 requires that the application include evidence of public notice and compliance with certain local planning and zoning ordinances.

KRS 278.704(2) requires setbacks of 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility. KRS 278.704(3) establishes that any decommissioning requirement or setback established by a local planning and zoning commission has (a) primacy over decommissioning requirements in KRS 278.706(2)(m) and the setback requirement in KRS 278.704(2) and (5), and (b) the local planning and zoning regulations shall not be subject to modification or waiver by the Siting Board. KRS 278.708(2) requires Wood Duck Solar to prepare a site assessment report (SAR) that includes (1) a detailed description of the proposed site; (2) an evaluation of the compatibility of the facility with scenic surroundings; (3) potential changes in property values and land use resulting from the siting, construction, and operation of the proposed facility for property owners adjacent to the site; (4) evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary; (5) the impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the vicinity of the facility; and (6) any mitigating measures to be suggested by Wood Duck Solar to minimize or avoid adverse effects identified in the SAR.

KRS 278.710(1) delineates the criteria on which the Siting Board will grant or deny the certificate, which include (1) impact on scenic surroundings, property values, and surrounding roads; (2) anticipated noise levels during construction and operation of the

facility; (3) economic impact on the region and state; (4) whether the proposed facility meets all local planning and zoning requirements existing on the date the application was filed; (5) impact of the additional load on the reliability of jurisdictional utilities; (6) setback requirements; (7) efficacy of mitigation measures proposed by Wood Duck Solar; (8) whether the applicant has a good environmental compliance history, and (9) whether the decommissioning plan is complete and complies with the requirements of KRS 278.706(2)(m) and any other local requirements that may apply.

PROPOSED FACILITY

The Project will be located on 2,259 acres in Barren County, Kentucky and includes approximately 204,552 photovoltaic solar panels,¹⁰ associated ground-mounted racking, approximately 35 inverters,¹¹ and a main transformer that will connect to the Bon Ayr substation owned by East Kentucky Power Cooperative (EKPC) through an approximately 500-foot 69 kV nonregulated transmission line.¹²

DISCUSSION AND FINDINGS

I. KRS 278.708: SAR Filing Requirements and Mitigation Measures

Mitigation Measures Proposed by Wood Duck Solar and Siting Board Consultant

As required by KRS 278.708(4), Wood Duck Solar proposed various mitigation measures to address the statutes regarding traffic, noise, roadway preservation, permitting, setbacks, public safety, scenic preservation, and decommissioning.

¹⁰ Application (filed May 19, 2025), Exhibit A, Project Maps at 1.

¹¹ Wood Duck Solar's Response to Staff's Second Request, Item 1, Attachment.

¹² Application at 2-5.

In accordance with KRS 278.708(5), Harvey recommended additional mitigation measures in the following areas: site development, compatibility with scenic surroundings, fugitive dust plans, noise levels, and notice and communication with adjacent landowners.¹³

Wood Duck Solar disagreed with certain recommendations of the Harvey Report's proposed mitigation measures.¹⁴ Wood Duck Solar's responses, which recite Harvey's recommendations, are set forth below:

A. Site Development Plan

Recommendation 1: The Siting Board will determine whether any deviation to the construction schedule or workforce estimates is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required. If so, the Applicant will support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

Response 1: Applicant agrees to submit an updated construction schedule prior to commencing construction, but requests that any deviations in the schedule or workforce estimates not be subject to a determination by the Siting Board regarding the impacts thereof, as construction scheduling and the number of daily onsite workers are subject to change on a nearly day-to-day basis due to factors beyond the Applicant or Board's control including, among others, inclement weather, unforeseen supply chain delays or disruptions, subcontractor relationships, and labor shortages.¹⁵

B. Compatibility with Scenic Surroundings

Recommendation 2: The Applicant will implement vegetative screening as proposed in the revised Screening Plan as a minimum, including vegetative screening near the O&M [Operations and Maintenance] area/Project substation.

¹³ Harvey Report (filed Sept. 15, 2025), Section 6 at 3-8.

¹⁴ Wood Duck Solar's Response to Consultant's Report (filed Sept. 29, 2025) at 2-13.

¹⁵ Wood Duck Solar's Response to Consultant's Report at 1-2.

Response 2: Applicant will implement vegetative screening as proposed in the revised Landscaping Plan as a minimum but will take into consideration feedback from nearby residents whose viewshed is impacted once construction of the substation, switchyard, and O&M is complete.¹⁶

Recommendation 3: The Applicant will provide any changes to the revised Proposed Screening Plan to the Siting Board.

Response 3: Applicant will implement vegetative screening as proposed in the revised Landscaping Plan but recommends this recommendation should not be adopted as it is redundant with site plan obligations.¹⁷

Recommendation 4: Any changes to the site infrastructure layout (i.e., panels, inverters, etc.) included in the Application materials will be submitted to the Siting Board for review. If the Siting Board deems those changes to be significant, the Siting Board may require the Applicant to revise the submitted Landscape Plan.

Response 4: This recommendation is redundant of the anticipated requirement that the Applicant submit a final site plan to the Siting Board for review. Applicant recommends that this recommendation not be adopted.¹⁸

Recommendation 5: The Applicant shall consult with local homeowners or businesses adjacent to the Project site to determine whether there are adverse impacts to the viewshed. The Applicant will work with those homeowners and businesses to address and resolve complaints related to view of Project facilities.

Response 5: This recommendation is both subjective in implementation and redundant with the complaint resolution program, and requires Applicant to meet with a third party that may not wish to meet with Applicant. Applicant recommends this recommendation should not be adopted.¹⁹

Recommendation 6: The Applicant will use anti-glare panels and operate the panels in such a way that glare from the panels is minimized or eliminated. The Applicant will work

¹⁶ Wood Duck Solar's Response to Consultant's Report at 2.

¹⁷ Wood Duck Solar's Response to Consultant's Report at 2.

¹⁸ Wood Duck Solar's Response to Consultant's Report at 4.

¹⁹ Wood Duck Solar's Response to Consultant's Report at 4.

with affected local residents and Barren County representatives to address and resolve complaints about glare from those living, working or traveling in proximity to the Project.

Response 6: This recommendation is both subjective and redundant, and Applicant recommends the Siting Board not to adopt this recommendation. Solar panels are designed to absorb sunlight and minimize glare. Also, in addition to implementing vegetative screening, the Applicant will establish a complaint resolution program prior to commencing construction to address and resolve glare complaints from nearby residents and travelers. For additional assurances, Applicant suggests that the Siting Board requires Applicant to operate the panels in accordance with FAA and other applicable agency requirements.²⁰

C. Potential Changes in Property Values and Land Use

Recommendation 7: No unique mitigation measures are recommended related to potential impacts to property values or adjacent land uses because other mitigation already recommended can accomplish this. However, close coordination by the Applicant with impacted and concerned homeowners regarding potential visual impacts and impacts from noise, traffic or other Project activities should be initiated.

Response 7: This recommendation is subjective, vague, and conflicts with evidence already in the record. Moreover, this recommendation is redundant with the complaint resolution program and should not be adopted.²¹

D. Anticipated Peak and Average Noise Levels

Recommendation 8: The Applicant shall respond to any complaints related to noise levels or noise causing activities occurring during construction or operations via a timely, formal and clearly developed complaint resolution program.

Response 8: This recommendation is redundant with the complaint resolution program and should not be adopted.²²

²⁰ Wood Duck Solar's Response to Consultant's Report at 4-5.

²¹ Wood Duck Solar's Response to Consultant's Report at 5.

²² Wood Duck Solar's Response to Consultant's Report at 6.

Recommendation 9: The Applicant should limit the construction activity, process and deliveries to the hours of 8:00 am to 5:00 pm, Monday through Saturday. No construction work should be conducted on Sundays.

Response 9: Applicant agrees with the spirit of this recommendation but recommends limiting noise-causing construction activities, including pile driving, to the hours of 8:00 a.m. to 5:00 p.m., Monday through Saturday, to allow non-noise causing Project-related activities to take place outside of these hours. No pile driving will occur on Sundays.²³

Recommendation 10: The Applicant shall maintain functional mufflers on all diesel-powered equipment.

Response 10: This recommendation is subjective and is redundant with the complaint resolution program. Applicant recommends the Siting Board not adopt this recommendation.²⁴

Recommendation 11: The Applicant should coordinate with the Woodland United Baptist Church and Cemetery to limit pile driving and heavy or oversize deliveries passing near the Church during their services, including funerals.

Response 11: This recommendation is redundant with the complaint resolution program. Applicant commits to mail a copy of its traffic management plan and provide points of contact for the Project to Woodland United Baptist Church leaders but otherwise recommends the Siting Board not adopt this recommendation.²⁵

E. Road and Rail Traffic, Fugitive Dust, and Road Degradation

Recommendation 12: The Applicant shall work with the Commonwealth road authorities and the BCRD [Barren County Road Department] to perform road surveys, before and after construction activities, on all roads in the Project area to be used by construction vehicles.

Response 12: Applicant agrees with the spirit of this recommendation, but as written the recommendation is redundant with the traffic study and subjective in

²³ Wood Duck Solar's Response to Consultant's Report at 6.

²⁴ Wood Duck Solar's Response to Consultant's Report at 6.

²⁵ Wood Duck Solar's Response to Consultant's Report at 7.

implementation. Applicant commits to meeting with state and local road authorities to the extent those entities are willing to meet with Project representatives. However, given the redundancy of the recommendation as written, Applicant recommends the Siting Board not adopt this recommendation.²⁶

Recommendation 13: The Applicant shall fix or pay for damage resulting from any Project-related commuting or heavy vehicle transport to the Project site during construction.

Response 13: Applicant recommends limiting this to “damage to roads caused by the Project”. As written, this recommendation is overly broad.²⁷

Recommendation 14: The Applicant shall implement a ridesharing plan for construction workers if feasible and if needed, use appropriate traffic controls or allow flexible working hours outside of peak hours to minimize any potential delays during AM and PM peak hours.

Response 14: Applicant can encourage ride sharing amongst construction workers but cannot require workers to ride share. Additionally, the nature of construction of solar facilities such as the Project will in almost all situations prevent implementation of flexible work hours for the construction workers.²⁸

Recommendation 15: The Applicant shall make a good faith effort to communicate its traffic management plan with the Amish community elders, and respond, if practicable, to their concerns.

Response 15: This recommendation is subjective in its implementation and requires Applicant to communicate with third parties that may not want to meet with Applicant. Applicant commits to mail a copy of its traffic management plan and provide points of contact for the Project to Amish community elders but otherwise recommends the Siting Board not adopt this recommendation.²⁹

²⁶ Wood Duck Solar’s Response to Consultant’s Report at 7.

²⁷ Wood Duck Solar’s Response to Consultant’s Report at 7-8.

²⁸ Wood Duck Solar’s Response to Consultant’s Report at 8.

²⁹ Wood Duck Solar’s Response to Consultant’s Report at 8.

Recommendation 16: The Applicant shall consult with CSX [CSX Corporation] and the KYTC [Kentucky Transportation Cabinet] to evaluate potential impacts or specific mitigation measures related to Project traffic over railroad crossings, as necessary.

Response 16: This recommendation is redundant with the traffic management plan. Additionally, the Applicant will not utilize railways for Project deliveries and no impacts to existing railways are anticipated by Applicant or raised in the Report. Applicant recommends the Siting Board not adopt this recommendation.³⁰

F. Decommissioning

Recommendation 17: The Applicant shall file a final decommissioning plan with the Siting Board, or its successors, as well as Barren County, which complies with Kentucky Revised Statutes (KRS) 278.706(2)(m) and applicable Barren County Subdivision Regulations (Article 5, Section 511.2). The plan shall commit the Applicant to the removal of all applicable Project components and required restoration activities.

Response 17: Applicant agrees with the spirit of this recommendation but recommends amending the recommendation to only require filing the Project's final decommissioning plan with the Siting Board prior to commencing construction. Barren County has enacted local decommissioning plan and bond requirements applicable to the Project, which, per KRS 278.704(3), has primacy over decommissioning requirements set forth in KRS 278.706(2)(m) and is not subject to modification or waiver by the Siting Board.³¹

Recommendation 18: The Applicant shall provide a bond or similar security to ensure financial performance of decommissioning in accordance with the requirements of (KRS) 278.706(2)(m)(5).

Response 18: Applicant recommends the Siting Board not adopt this recommendation. Barren County has enacted local decommissioning bond requirements applicable to the Project in Section 511 of the Subdivision Regulations of Barren County, Kentucky, which, per KRS 278.718, has primacy over

³⁰ Wood Duck Solar's Response to Consultant's Report at 8-9.

³¹ Wood Duck Solar's Response to Consultant's Report at 9.

decommissioning bond requirements set forth in KRS 278.706(2)(m).³²

Recommendation 19: The bond amount should be reviewed and updated every five years at the expense of the Applicant to determine and update the cost of facility removal. This review shall be conducted by an individual or firm with experience or expertise in the costs of removal or decommissioning of electric generating facilities. Certification of this review shall be provided to the Siting Board or its successors and the Barren County Fiscal Court. Such certification shall be by letter and shall include the current amount of the anticipated bond and any change in the costs of removal or decommissioning.

Response 19: Applicant recommends the Siting Board not adopt this recommendation because the Siting Board would not retain jurisdiction over the Project at the time the recommended certification submittals would be required. Rather, period decommissioning bond recalculations would be required under administrative regulations promulgated by the Kentucky Energy and Environment Cabinet.³³

Recommendation 20: If the Applicant proposes to retrofit the current proposed facility, it shall demonstrate to the Siting Board that the retrofit facility will not result in a material change in the pattern or magnitude of impacts compared to the original project. Otherwise, a new Site Assessment Report will be submitted for Siting Board review. The term retrofit is defined as the facility being redesigned such that the facility has a different type of operations or function, i.e., no longer operates as a solar electric generation facility.

Response 20: Applicant recommends adopting the Siting Board's standard provision concerning this issue, which states: [Wood Duck] shall commit to removing debris and replaced facility components from the Project site upon replacement. Further, Applicant disagrees with the requirement to inform the siting Board of retrofits because the Siting Board will not have jurisdiction over the facility once construction is complete.³⁴

³² Wood Duck Solar's Response to Consultant's Report at 9-10.

³³ Wood Duck Solar's Response to Consultant's Report at 10.

³⁴ Wood Duck Solar's Response to Consultant's Report at 10-11.

Recommendation 21: The Applicant shall also prepare a new Site Assessment Report for Siting Board review if the Applicant intends to retire the currently proposed facility and employ a different technology.

Response 21: Applicant recommends the Siting Board not adopt this recommendation as Applicant's recommendation above addresses this issue. As written, this recommendation is vague and would essentially require submittal of a new construction certificate application. Further, the Siting Board's jurisdiction over the Project ends once construction of the facility is complete and operations commence.³⁵

Recommendation 22: The Applicant, its successors, or assigns must provide notice to the Siting Board if during any two-year period it replaces more than twenty percent of its facilities. The Applicant shall commit to removing the debris and the older facility components from the Project site upon replacement. The Applicant must inform the Siting Board of where the removed facility components are being disposed of.

Response 22: Applicant recommends removing the requirement to inform the Siting Board of where facility components are disposed. At the time of disposal, the Kentucky Energy and Environment Cabinet will have jurisdiction over the facility. Additionally, the threshold to trigger notification to the Siting Board (i.e., twenty percent (20%) of its facilities) is vague regarding the scope of components, equipment, and associated facilities that comprise the ultimate "facility".³⁶

G. Public Outreach and Communication

Recommendation 23: The Applicant should continue to engage with local residents, businesses and others to provide additional information about the Project, provide a forum for hearing comments and concerns, and to address questions as they arise.

Response 23: This recommendation is redundant of the complaint resolution program and should not be adopted. Applicant has endeavored to remain transparent to the public with respect to the Project.³⁷

³⁵ Wood Duck Solar's Response to Consultant's Report at 11.

³⁶ Wood Duck Solar's Response to Consultant's Report at 11-12.

³⁷ Wood Duck Solar's Response to Consultant's Report at 12.

Recommendation 24: The Applicant should make additional efforts to reach out to specific groups or entities within Barren County, potentially including the Amish community and local churches, which may have concerns regarding the Project.

Response 24: Applicant recommends the Siting Board not adopt this recommendation as redundant of the complaint resolution program.³⁸

H. Complaint Resolution Program

Recommendation 25: The Applicant should develop and implement a complaint resolution plan that describes the process for filing complaints during construction and during operations, and this plan should be provided to Barren County and the Siting Board. The complaint resolution plan should explain how to register the complaint; how it will be addressed; the timeframe in which a complainant can expect a response; and an explanation of how resolution will be determined if the complainant is not satisfied with the response from the Applicant.

Response 25: Applicant recommends that the Siting simply require the Applicant to adopt a complaint resolution program prior to commencement of construction.³⁹

Recommendation 26: The Applicant should submit to the Siting Board, annually, a status report associated with the complaint resolution plan, recounting the individual complaints, how the Applicant addressed those complaints and the ultimate resolution of those complaints.

Response 26: Applicant agrees with the spirit of this recommendation but recommends that annual status report submittals only be required during the Project's construction phase. After construction of the facility is complete, the Siting Board's jurisdiction over the facility ends and the Kentucky Energy and Environment Cabinet's jurisdiction over the facility begins.⁴⁰

The Siting Board has reviewed the mitigation measures proposed by Wood Duck Solar and Harvey and adopts the mitigation measures recommended by Harvey. In

³⁸ Wood Duck Solar's Response to Consultant's Report at 12.

³⁹ Wood Duck Solar's Response to Consultant's Report at 13.

⁴⁰ Wood Duck Solar's Response to Consultant's Report at 13.

addition to those Wood Duck Solar has initially proposed, the mitigation measures set forth in Appendix A to this Order and discussed throughout this Order are appropriate and reasonable because they achieve the statutory purpose of mitigating the adverse effects identified in the SAR and the Harvey Report in accordance with KRS 278.708.

Detailed Site Description

KRS 278.708(3)(a)(1–6) requires that the detailed site description in the SAR include a description of (1) surrounding land uses for residential, commercial, agricultural, and recreational purposes; (2) the legal boundaries of the proposed site; (3) proposed access control to the site; (4) the location of facility buildings, transmission lines, and other structures; (5) location and use of access ways, internal roads, and railways; and (6) existing or proposed utilities to service the facility.

Wood Duck Solar submitted the required SAR with its application.⁴¹ The application contained a preliminary site plan,⁴² which was updated during the pendency of the proceedings.⁴³ The site plan included the project boundary, parcel boundaries, proposed fence line, existing roads, proposed access roads, proposed access points, proposed solar arrays, proposed electrical equipment, proposed substation location, proposed project collection station location, proposed laydown areas, proposed point of interconnection (POI), proposed MV cables, proposed underground collection

⁴¹ Application, Exhibit H, Site Assessment Report (SAR).

⁴² Application, Exhibit A, Project Maps.

⁴³ Wood Duck Solar's Response to Staff's First Request, Item 58.

segments,⁴⁴ and wetland and karst features.⁴⁵ Historical barns located onsite are dilapidated and are not listed as historic structures.⁴⁶ These features will be removed from the site and infrastructure will be installed within these areas.⁴⁷

According to Wood Duck Solar, no National Historic Landmarks or National Register of Historic Places (NRHP) listed resources are located within two kilometers of the Project's Area of Potential Effects (APE).⁴⁸ A Critical Issues Analysis conducted by Cardno (now Stantec), identified three historic structures within the Project site primarily composed of a barn and outhouses, an archeological site that was determined ineligible for NRHP listing, as well as three historic cemeteries: Woodland Baptist Church Cemetery, Settle Cemetery #5, and an unnamed cemetery.⁴⁹ Stantec recommended a 100-foot buffer for all seven historic features.⁵⁰ NRHP eligibility of the three historic structures and three historic cemeteries within the Project's APE have not been determined.⁵¹ Wood Duck Solar originally stated that no more than 223 acres of vegetative clearing would occur during construction.⁵² During the proceedings of the case, Wood Duck Solar indicated that some tree clearing activity had been completed

⁴⁴ Wood Duck Solar's Response to Staff's Post-Hearing Request, Item 1.

⁴⁵ Wood Duck Solar's Response to Staff's First Request, Item 58.

⁴⁶ Wood Duck Solar's Response to Staff's Second Request, Item 11.

⁴⁷ Wood Duck Solar's Response to Staff's Second Request, Item 11.

⁴⁸ Wood Duck Solar's Response to Staff's Second Request, Item 10.

⁴⁹ Wood Duck Solar's Response to Staff's First Request, Item 33, Attachment Part 3 of 5, Critical Issues Analysis, Section 5 at 2-4 and Section 6 at 1.

⁵⁰ Wood Duck Solar's Response to Staff's First Request, Item 33, Attachment Part 3 of 5, Critical Issues Analysis, Section 5 at 4.

⁵¹ Wood Duck Solar's Response to Staff's Second Request, Item 10.

⁵² Wood Duck Solar's Response to Staff's First Request, Item 27.

voluntarily by a landowner.⁵³ Wood Duck Solar stated that the Project did not direct or otherwise request that clearing activities be initiated, and clearing activities were voluntarily undertaken by the landowner.⁵⁴ It also stated the lease agreements do not prohibit a landowner from engaging in clearing activities prior to the Project providing notice that it intends to commence construction of the Project.⁵⁵ The Project does not anticipate use of the railway for delivery of Project components.⁵⁶ The length of proposed vegetative screening is 45,353.92 feet (8.60 miles).⁵⁷ As currently proposed, vehicles will not travel over the CSX railway route to access the site for construction or operation.⁵⁸ The legal boundaries of the proposed site were provided by the applicant.⁵⁹

Each entrance will have its own security gate during construction and operation.⁶⁰ The Project solar arrays and inverters will be secured with approximately 159,740 linear feet of perimeter fence, consisting of eight-foot game style fence.⁶¹ A security fence meeting National Electric Safety Code (NESC) requirements will secure the substation, consisting of six-foot game style fence with three strand barbed wire at the top.⁶² The fence enclosing the substation will adhere to North American Electric Reliability

⁵³ Wood Duck Solar's Response to Staff's Second Request, Item 5.

⁵⁴ Wood Duck Solar's Response to Staff's Post-Hearing Request, Item 6.

⁵⁵ Wood Duck Solar's Response to Staff's Post-Hearing Request, Item 6.

⁵⁶ Harvey Report, Section 2 at 6.

⁵⁷ Wood Duck Solar's Response to Staff's Second Request, Item 31.

⁵⁸ Harvey Report, Section 2 at 6.

⁵⁹ Wood Duck Solar's Response to Staff's First Request, Item 33, part 1 of 5.

⁶⁰ Harvey Report, Section 2 at 2.

⁶¹ Harvey Report, Section 2 at 2.

⁶² Harvey Report, Section 2 at 2.

Corporation (NERC) safety standards and will be appropriately spaced, bonded, and grounded in compliance with NESC requirements prior to installation of any electrical equipment.⁶³ A total of 21 separate entrances (access points) to different locations across the Project site are proposed for construction and operational access.⁶⁴ All entrances and driveways will comply with applicable design requirements for safe access and egress.⁶⁵

Approximately 35 inverters will be installed throughout the Project to convert the DC power from the 1,500-volt DC collection system to AC power, which will then be transmitted to a Project substation via the 34.5-kilovolt (kV) collection system.⁶⁶ The AC collection system will be comprised of medium voltage (MV) cable that will transfer electricity to the Project substation.⁶⁷ A 500-foot transmission line is proposed to connect the Project substation to the existing 69 kV Bon Ayr substation owned and operated by EKPC.⁶⁸ Approximately 59,141 linear feet of collection system cables would be installed throughout the Project.⁶⁹ Electric utility service is anticipated to be obtained from Farmers

⁶³ Wood Duck Solar's Response to Staff's First Request, Item 34.

⁶⁴ Harvey Report, Section 3 at 5.

⁶⁵ Harvey Report, Section 3 at 5.

⁶⁶ SAR at 3.

⁶⁷ SAR at 4.

⁶⁸ Harvey Report, Section 2 at 2.

⁶⁹ SAR at 4.

Rural Electric Cooperative Corporation and water utility service from Glasgow Water Company.⁷⁰ Sanitary sewer and gas utility services are not anticipated for the Project.⁷¹

Land surrounding the Project site predominantly consists of forested and agricultural land, as well as residential properties.⁷² The area within 2,000 feet of the Project site includes 266 homes and 88 non-residential structures.⁷³ The shortest distance between a solar panel and a non-participating landowner's residence proposed by Wood Duck Solar is 189 feet.⁷⁴ The site consists mainly of 28 parcels secured from 15 landowners pursuant to real estate agreements with each landowner.⁷⁵ Of the proposed 2,259-acre Project site, approximately 1,256.6 acres were mapped as being potentially used for active agriculture.⁷⁶ A total of 72 streams and 83 wetlands were identified within the Project.⁷⁷ Of these, 71 streams and 67 wetlands potentially possess a significant nexus to Gardner Creek and Little Sinking Creek, which drain north to Mammoth Cave National Park.⁷⁸

According to the data from Kentucky Geological Survey, there are 26 known oil and gas wells located within Project boundaries, with eight wells located under areas

⁷⁰ Harvey Report, Section 3 at 6.

⁷¹ Harvey Report, Section 3 at 6.

⁷² Harvey Report, Section 3 at 4.

⁷³ Harvey Report, Section 3 at 4.

⁷⁴ Wood Duck Solar's Response to Consultant Report at 2.

⁷⁵ SAR at 1.

⁷⁶ Wood Duck Solar's Response to Staff's Second Request, Item 18.

⁷⁷ Wood Duck Solar's Response to Staff's First Request, Item 58, Cumulative Environmental Assessment (CEA) at 2.

⁷⁸ Wood Duck Solar's Response to Staff's First Request, Item 58, CEA at 2.

anticipated for Project panel installation.⁷⁹ Of these eight wells, seven are listed as plugged, abandoned, or have a permit which has been terminated.⁸⁰ The status of one well is unclear.⁸¹ Wood Duck Solar identified ten churches located within two miles of the Project, with the closest being 50 feet to a participating parcel boundary.⁸² There are no schools located within a two-mile radius of the Project.⁸³ In total, 21 cemeteries and burial grounds were identified within two miles of the Project.⁸⁴ There are eight residential neighborhoods (as defined by KRS 278.700(6)) within 2,000 feet of the Project.⁸⁵

Compatibility with Scenic Surroundings

Wood Duck Solar stated that the Project site and surrounding terrain is primarily agricultural and residential, including row crops, harvested hay, and pastureland.⁸⁶ Wood Duck Solar plans to provide landscape buffers of double row evergreen trees spaced on 15-foot centers in order to minimize the Project's impact on the viewshed.⁸⁷ The Project will use native plants for vegetative buffers, primarily Eastern Cedar, American Holly, and Virginia Pine.⁸⁸ Harvey reviewed and evaluated the SAR and stated that data and

⁷⁹ Wood Duck Solar's Response to Staff's First Request, Item 24b.

⁸⁰ Wood Duck Solar's Response to Staff's First Request, Item 24b.

⁸¹ Wood Duck Solar's Response to Staff's First Request, Item 24b.

⁸² Wood Duck Solar's Response to Staff's First Request, Item 3.

⁸³ Wood Duck Solar's Response to Staff's First Request, Item 5.

⁸⁴ Wood Duck Solar's Response to Staff's First Request, Item 25.

⁸⁵ Application at 7.

⁸⁶ Application at 3.

⁸⁷ SAR at 17.

⁸⁸ SAR, Attachment G, Landscape Plan at 8-9.

conclusions contained in the SAR complied with statutory requirements for compatibility with scenic surroundings required by KRS 278.708.⁸⁹

Having reviewed the record, the Siting Board finds that, while there will always be an impact on the scenery of neighboring properties, the impact of this Project will be minimal, if the applicant remains within the limits and mitigation measures established herein. If the Applicant fails to comply with the limits and mitigation measures established herein, the Siting Board finds that the project would be incompatible with scenic surroundings to a material extent such that the project should not be approved. The proposed vegetative buffer, along with other mitigation measures proposed by Wood Duck Solar and Harvey, will minimize the majority of the effects that the proposed facility will have on the scenic surroundings of the site. However, the Siting Board finds that additional mitigation measures should be required in addition to those proposed by Wood Duck Solar and Harvey. Those additional mitigation measures are set forth in Appendix A to this Order.

In particular, the NPS raised concerns over the presence of a battery storage system in the Project area that the NPS thought could affect endangered species in the Mammoth Cave National Park and raised concerns regarding the lack of communication with the NPS about that issue.⁹⁰ To address those concerns, the Siting Board finds that Wood Duck Solar should be required to make a good faith effort to address any concerns of the NPS. This mitigation measure is further outlined in Appendix A to this Order, specifically mitigation measure 40.

⁸⁹ Harvey Report at 5-12.

⁹⁰ United States Department of the Interior Correspondence dated April 15, 2025, sent via electronical mail from Marcus H. Key and filed in Public Comments.

Impact on Property Values

Wood Duck Solar submitted a property value impact report prepared by Kirkland Appraisals, LLC (Kirkland Report), a certified real estate appraiser.⁹¹ The Kirkland Report found that there was no impact on property value for property adjoining a solar farm with proper setbacks and landscaped buffers.⁹² The Kirkland Report utilized Matched Pair Analysis in analyzing the property value impact of the Project.⁹³

The Harvey Report found that the existence of solar facilities does not, in general, measurably result in property value changes.⁹⁴ The Harvey Report concluded that, assuming recommended mitigation measures are implemented, the Project is unlikely to affect nearby property values.⁹⁵

Having reviewed the record, the Siting Board finds sufficient evidence to conclude that the proposed Wood Duck Solar facility will not have any significant adverse impact on nearby property values so long as proper mitigation measures are implemented with the limits and mitigation measures discussed herein. The characteristics of the solar facility's operations are passive and the land returned to its natural state after a few decades of operation. Pursuant to the case record, there is not sufficient evidence to show that, after construction, the facility would produce any air, noise, waste, or water pollution, nor should it create any traffic issues during operation.

⁹¹ SAR, Attachment B, Property Valuation Assessment at 1.

⁹² SAR, Attachment B, Property Valuation Assessment at 1.

⁹³ Application, Attachment G, Landscape Plan at 13.

⁹⁴ Harvey Report, Section 5 at 20.

⁹⁵ Harvey Report, Section 5 at 21.

Anticipated Noise Level

Wood Duck Solar's Sound Study was completed by Stantec.⁹⁶ Stantec used representative noise levels from the Federal Highway Administration Roadway Construction Noise Model.⁹⁷ Stantec stated the highest estimated noise levels during construction will occur during pile driving and estimated that at the closest receiver (SR-154), 83 feet from the closest panel, would have noise levels during pile driving of an Lmax of 96 decibels A-weighted scale (dBA) and a Leq of 94 dBA.⁹⁸ Construction related activity is expected to occur between 7 a.m. and 7 p.m.⁹⁹

Stantec found operational noise will emanate from inverters and substation transformers.¹⁰⁰ Based on Stantec's operational sound modeling the highest sound level at nearby sensitive receptors was 46 dBA.¹⁰¹ Stantec stated that the Project's generated noise levels for daytime and nighttime operation are comparable to outdoor daytime sound levels in rural to quiet urban environments.¹⁰² Stantec concluded that no one noise sensitive receptor will be exposed to the same sound levels over an extended period of time, as construction progresses through the site.¹⁰³

⁹⁶ SAR, Attachment D, Sound Study.

⁹⁷ SAR, Attachment D, Sound Study at 6.

⁹⁸ SAR, Attachment D, Sound Study at 7.

⁹⁹ SAR, Attachment D, Sound Study at 5.

¹⁰⁰ SAR, Attachment D, Sound Study at 8.

¹⁰¹ SAR, Attachment D, Sound Study at 9.

¹⁰² SAR, Attachment D, Sound Study at 9.

¹⁰³ SAR, Attachment D, Sound Study at 9.

Harvey evaluated the Sound Study conducted by Stantec and also concluded that the Project's construction phase will produce the highest noise levels, especially during pile-driving activity.¹⁰⁴ Harvey noted construction will generate noise levels greater than 55 dBA, which is above the standards of annoyance, but since construction activities are not sustained, no hearing loss or long-term annoyance to residents is expected.¹⁰⁵ Harvey stated that since natural vegetation borders many parcels within the Project site, the vegetative buffer will help mitigate noise for nearby homeowners.¹⁰⁶ Additionally, Harvey suggested that Wood Duck Solar coordinate with the Woodland United Baptist Church and Cemetery to limit pile driving and heavy or oversize deliveries passing near the Church during their services, including funerals.¹⁰⁷ Wood Duck Solar stated that it plans to coordinate with nearby churches to pause construction during services and funerals.¹⁰⁸

The Siting Board finds that noise from the construction phase will be intermittent and temporary but will be significant to the nearest residences. As indicated by Stantec and Harvey, the noise will be loudest during the construction phase but will not be permanent to nearby residents. The Siting Board further finds that the operational noise from inverters and the substation transformers should have little to no effect on residents in the area. Based on the case record, the Siting Board finds that Wood Duck Solar's application complies with the statutory requirements for disclosing noise levels. However,

¹⁰⁴ Harvey Report, Section 2 at 5.

¹⁰⁵ Harvey Report, Section 2 at 5-6.

¹⁰⁶ Harvey Report, Section 2 at 6.

¹⁰⁷ Harvey Report, Section 5 at 31.

¹⁰⁸ Hearing Video Transcript of the Oct. 2, 2025 Hearing, Aerin Garczyk at 02:35:43-02:36:42.

the Siting Board further finds that, based on the entire record, Wood Duck Solar will be required to implement specific mitigation measures to ensure the impact of construction noise does not unduly impact nearby residents. The mitigation measures implemented by the Siting Board are designed to limit the effects of construction noise by controlling the hours of construction in general, as well as the time and manner pile driving can occur. The Siting Board will require Wood Duck Solar to mitigate construction noise up to 1,500 feet to ensure the surrounding community is not negatively impacted by the construction noise. Wood Duck Solar may forego noise suppression if it employs a panel installation method that does not involve pile driving, so long as the method does not produce noise levels similar to pile driving. Wood Duck Solar shall coordinate with Woodland United Baptist Church and Cemetery to limit construction activities during their services, including funerals. These mitigation measures are further outlined in Appendix A to this Order, specifically mitigation measures 16 through 19.

Impact on Roads, Railways, and Fugitive Dust

Wood Duck Solar employed Stantec to conduct the traffic impact study.¹⁰⁹ Project construction will take approximately 18 months to complete.¹¹⁰ The Project will have 23 access points, primarily along New Bowling Green Road, Oak Grove Church Road, and Millstown Road.¹¹¹ Stantec determined that based on its analysis of traffic patterns, the construction phase of the project will not have an adverse impact on peak hour traffic

¹⁰⁹ SAR, Attachment H, Traffic Impact Study.

¹¹⁰ Wood Duck Solar's Response to Staff's First Request, Item 11.

¹¹¹ Wood Duck Solar's Response to Staff's Second Request, Item 1.

operations.¹¹² Stantec determined that fugitive dust will be mitigated via covering loads and applying water to suppress dust.¹¹³

Harvey conducted its own analysis of traffic management and determined that the numerous entrance points to the Project will help to reduce construction traffic impacts.¹¹⁴ Harvey found that there is a chance construction vehicles could damage local roads and recommended that Wood Duck Solar bear the cost of road repairs as they work with the local road department.¹¹⁵ Harvey further found that fugitive dust should not be an issue given Wood Duck Solar's proposed mitigation measures.¹¹⁶

The Siting Board finds that traffic and road congestion issues can be addressed with Wood Duck Solar's mitigation measures and mitigation measures set forth in Appendix A to this Order.

The Siting Board finds that additional mitigation measures are necessary to reduce any potentially harmful effects on the area, which are outlined in Appendix A to this Order. Additionally, to ensure the appropriate monitoring of the proposed project the Siting Board finds that Wood Duck Solar should inform the Siting Board and the Energy and Environment Cabinet (EEC) of the date construction will commence, 30 days prior, to ensure the proper permits have been obtained and whether proper steps have been taken to comply with the mitigation measures set forth in Appendix A to this Order.

¹¹² SAR, Attachment H, Traffic Impact Study at 4.

¹¹³ Harvey Report, Section 5 at 36-37.

¹¹⁴ Harvey Report, Section 5 at 41.

¹¹⁵ Harvey Report, Section 5 at 42.

¹¹⁶ Harvey Report, Section 5 at 42.

II. KRS 278.710(1) Criteria

In addition to the evaluation of the factors addressed in the SAR, the Siting Board considered the below described factors set forth in KRS 278.710(1) in rendering its decision.

Economic Impact on Affected Region and the State

Wood Duck Solar contracted Consulting Economist Dr. Paul Coomes, Emeritus Professor of Economics from the University of Louisville, to estimate the economic and fiscal impacts of the Wood Duck Solar Project.¹¹⁷ According to Wood Duck Solar's economic impact report, the proposed solar facility will invest over \$130 million in Barren County, including land acquisition, site preparation, solar panel and electrical equipment installation, landscaping, and security fencing.¹¹⁸ The project will be conducted in two phases: a construction phase and an operation phase.¹¹⁹

The IMPLAN model used for the economic impact analysis focused only on Barren County because of the lack of industrial linkages in the region.¹²⁰ During the Project construction phase, Wood Duck Solar estimates that approximately 240 temporary, full time jobs will be created over the construction period with a direct payroll of approximately \$14.2 million, including fringe benefits.¹²¹ This equates to an average wage of \$59,100 per construction job as compared to the 2023 average annual salary for all jobs in Barren

¹¹⁷ Application, Exhibit F, Economic Analysis.

¹¹⁸ Application, Exhibit F, Economic Analysis at 1.

¹¹⁹ Application, Exhibit F, Economic Analysis at 9.

¹²⁰ Application, Exhibit F, Economic Analysis at 8.

¹²¹ Application, Exhibit F, Economic Analysis at 9-10.

County, \$45,952.¹²² The indirect and induced economic impacts are estimated to contribute another 55 jobs with an additional \$3.5 million in payroll.¹²³

The total construction phase economic impact is estimated to be 295 total full-time equivalent jobs in Barren County with a new payroll of \$17.7 million.¹²⁴ The vast majority of these jobs will be filled by craft workers and contractors such as fencers, electricians, panel installers, equipment operators and construction managers.¹²⁵ Wood Duck Solar intends to hire as many local workers as possible and plans to partner with Kentucky Laborers District Council and local branches of union organizations under the National Tri-Trade Solar Agreement.¹²⁶

The ongoing economic impact from the project's operational phase is estimated to be very small relative to the one-time impacts from the construction phase. The ongoing operational phase of the project is expected to generate annual employment of 8.7 jobs, with labor compensation of \$536,000.¹²⁷

Wood Duck Solar and Barren County do not intend to pursue an Industrial Revenue Bond (IRB) and a Payment in Lieu of Taxes (PILOT) Agreement.¹²⁸ If an IRB and PILOT are not reached, Wood Duck Solar estimates that it will pay property taxes to

¹²² Application, Exhibit F, Economic Analysis at 10.

¹²³ Application, Exhibit F, Economic Analysis at 11, (calculated by subtracting direct jobs and payroll from total jobs and payroll: 295 Total Jobs minus 240 Direct Jobs equals 55 Induced Jobs; \$17.7 million Total Payroll minus \$14.2 million Direct Payroll equals \$3.5 million Induced Payroll).

¹²⁴ Application, Exhibit F, Economic Analysis at 11.

¹²⁵ Application, Exhibit F, Economic Analysis at 10.

¹²⁶ Wood Duck Solar's Response to Staff's First Request, Item 46.

¹²⁷ Application, Exhibit F, Economic Analysis at 12.

¹²⁸ Wood Duck Solar's Response to Staff's First Request, Item 47.

local jurisdictions of approximately \$15.1 million (with \$11.0 million going to the county school system) while the state would receive approximately \$5.2 million over the 40-year project life.¹²⁹ These payments, which average about \$378,000 annually, can be compared to the \$17,000 per year in property tax payments based upon the agricultural use value of the land.¹³⁰ Barren County does not levy a countywide occupational or net profits tax.¹³¹

Harvey evaluated the economic impact of the project.¹³² Based upon its review and analysis, Harvey concluded that the project would provide a positive, albeit small, economic benefit to the region and Commonwealth during the construction and operations phases of the project.¹³³

The Siting Board finds that the Wood Duck Solar facility will have a positive economic impact on the affected region and the state.

Existence of Other Generating Facilities

Wood Duck Solar stated that it could not feasibly co-locate with existing generating facilities.¹³⁴ Wood Duck Solar will instead interconnect to the existing Bon Ayr substation owned by EKPC.¹³⁵

¹²⁹ Application, Exhibit F, Economic Analysis at 14.

¹³⁰ Application, Exhibit F, Economic Analysis at 14.

¹³¹ Application, Exhibit F, Economic Analysis at 13.

¹³² Harvey Report, Section 2 at 7.

¹³³ Harvey Report, Section 5 at 48-49.

¹³⁴ Application at 9.

¹³⁵ Application at 9.

Local Planning and Zoning Requirements

Barren County has a planning commission, the Joint City-County Planning Commission of Barren County (JCCPC), that has enacted regulations for the development of merchant solar facilities. Subdivision Regulation Section 503.1.5 establishes 50-foot front yard, 10-foot side yard, and 20-foot rear yard setbacks. Wood Duck Solar has certified that the Project will comply with all local regulations.¹³⁶

Impact on Transmission System

The Project will interconnect with the EKPC transmission system at either the Bon Ayr 69 kV substation or the Bon Ayr to Cave City 69 kV line.¹³⁷ The EKPC substation is not anticipated to require any improvements or reconfigurations for interconnection.¹³⁸ The Project substation is located next to the EKPC Bon Ayr substation.¹³⁹

Compliance with Setback Requirements

KRS 278.704(2) requires setbacks of 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility. KRS 278.704(3) establishes that any decommissioning requirement or setback established by a local planning and zoning commission has (a) primacy over decommissioning requirements in KRS 278.706(2)(m) and the setback requirement in KRS 278.704(2) and (5), and (b) the local planning and zoning regulations shall not be subject to modification or waiver by the Siting Board.

¹³⁷ Application, Exhibit E, Interconnection Studies and One-Line Diagram at 6.

¹³⁸ Wood Duck Solar's Response to Staff's Second Request for Information, Item 30.

¹³⁹ Application, Exhibit A, Project Maps at 1.

The local planning commission with jurisdiction over the Project, the JCCPC, has established setbacks for solar farm facilities pursuant to Subdivision Regulation Section 503.1.5, Solar Production Farm Setback Lines. The regulation states that “all ground-mounted Solar Energy Systems (SES) shall be . . . a minimum fifty (50’) feet front yard setback, ten (10’) feet side yard and twenty (20’) feet rear yard setback shall apply.” The Barren County Fiscal Court passed Ordinance No. 695 on May 20, 2025, requiring a setback of 1,000 feet from any non-participating property line and from any right-of-way for a publicly maintained roadway or rail line, but Subdivision Regulation Section 503.1.5 was in effect at the time the application was filed and is applicable to the Project.¹⁴⁰ Wood Duck Solar also submitted the Project for review and approval by the JCCPC in December of 2023.¹⁴¹

Therefore, Wood Duck Solar has not requested a deviation, pursuant to KRS 278.704, from the statutory setback requirements for the Project. Wood Duck Solar has committed to the setbacks required by the JCCPC of 50-foot front yard, 10-foot side yard, and 20-foot rear yard setbacks.¹⁴²

History of Environmental Compliance

In its application, Wood Duck Solar stated that neither it, nor any entity with an ownership interest in it, has violated any environmental laws, rules, or administrative

¹⁴⁰ Pursuant to KRS 278.710(1)(e), the Siting Board is to consider whether “the proposed facility will meet all local planning and zoning requirements that existed on the date the application was filed.” Barren County Fiscal Court Ordinance No. 695 was not in effect at the time the application was filed. Further, the Barren County Judge Executive filed a public comment into the record on September 24, 2025, clarifying that Ordinance No. 695 was only applicable to the Project if the Project expands beyond its currently proposed scope.

¹⁴¹ Application, Exhibit J, Planning Commission Meeting Minutes.

¹⁴² Joint City-County Planning Commission of Barren County, Kentucky, Subdivision Regulations, Section 503.1.5.

regulations.¹⁴³

Decommissioning

Wood Duck Solar submitted a decommissioning plan with the application.¹⁴⁴ The decommissioning plan includes provisions to de-energize solar arrays, dismantle and remove panels and above-ground wiring, remove tracking equipment and piles, and remove the array fence, among others.¹⁴⁵ Wood Duck Solar indicated it will secure a bond to assure financial performance of the decommissioning obligation.¹⁴⁶ The surety bond will be 100 percent of the net decommissioning cost.¹⁴⁷ Harvey determined that completion of reclamation activities would eliminate long term Project-related negative impacts and included a number of mitigation measures in addition to Wood Duck Solar's decommissioning plan.¹⁴⁸

The Siting Board finds that Wood Duck Solar must return the land to its original use, to the extent possible, at the end of the Project's life. Returning the land back to its original state and use after decades of operation is a material element of the Siting Board's finding regarding the impact of the facilities on scenic surroundings, property values, and the economy. The relatively "temporary" nature of the facilities compared to other types of more permanent development, such as thermal merchant generation facilities, industrial operations, or housing, is a prime consideration of the Siting Board in

¹⁴³ Application at 11.

¹⁴⁴ Application, Exhibit I, Decommissioning Plan.

¹⁴⁵ Application, Exhibit I, Decommissioning Plan at 2.

¹⁴⁶ Application, Exhibit I, Decommissioning Plan at 11.

¹⁴⁷ Application, Exhibit I, Decommissioning Plan at 11.

¹⁴⁸ Harvey Report, Section 5 at 51-52.

granting a certificate, with conditions, on this matter. An inability or unwillingness to return the land back to its prior state after the life of the facility, including leaving underground facilities in excess of three feet, increases the permanence of the facility. As such, the Siting Board finds that Wood Duck Solar should remove all facility components, both above and below ground, and regrade and recompact the soil in a manner appropriate for agricultural use. Removal of all underground components and regrading or recompact soil for agricultural use will mitigate any damage to the land, thus returning the land to a state that provides at least as great of an economic impact as it does today. The Siting Board finds that Wood Duck Solar should also implement additional mitigation measures related to decommissioning, which are outlined in Appendix A to this Order.

III. Requirements under KRS 278.714

KRS 278.714(2) directs the applicant to submit the following criteria in considering an application for the construction of the unregulated transmission line as proposed by Wood Duck Solar:

- Location of proposed line and structures to support it;
- Proposed right-of-way limits;
- Existing property lines that will be crossed and names of owners;
- Distance from neighborhoods, schools, public and private parks;
- Voltage and capacities;
- Length of line;
- Terminal points;
- Substation connection; and
- Statement of compliance for construction and maintenance with engineering practices and the NESC.

Full Description of the Proposed Route of the Transmission Line

The Project 500-foot nonregulated transmission line will interconnect from the Project substation and run east, then south and east into the Bon Ayr substation owned

and operated by EKPC.¹⁴⁹

Detailed Description of the Proposed Transmission Line and Appurtenances

KRS 278.714(2)(c) states that a full description of the proposed electric transmission line and appurtenances is required, including the following: initial and design voltages and capacities; length of the line; terminal points; and substation connections.

Wood Duck Solar submitted a map showing the route of the proposed transmission line.¹⁵⁰ The proposed transmission line route is entirely within the Project boundaries up until connection with EKPC's Bon Ayr substation.

The Siting Board finds additional requirements are necessary to ensure protections exist in case the transmission line route is different than the route supported by the record of this matter. This will be set forth more fully in Appendix A to this Order.

Compliance with National Electrical Safety Code (NESC)

KRS 278.714(2)(d) requires that the Applicant provide a statement that the proposed electric transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the NESC. Wood Duck Solar confirmed that the proposed electric transmission line would be built and maintained in accordance with accepted engineering practices and the NESC.¹⁵¹

Requirements under KRS 278.714(3)

The Siting Board is also tasked with examining the following additional criteria in rendering its decision regarding construction of the proposed transmission line.

¹⁴⁹ Application at 3.

¹⁵⁰ Application, Exhibit A, Project Maps.

¹⁵¹ Application at 4.

Scenic Impact

For the proposed nonregulated transmission line, the Project features under consideration for scenic compatibility include towers to support the transmission line, and the approximately 500-foot route of the transmission line from the Project substation located within the proposed Project site to the EKPC Bon Ayr substation adjoining the Project.

Wood Duck Solar stated that the proposed nonregulated transmission line is at least 350 feet from any nonparticipating landowner and that there are no schools or private parks within one mile of the proposed facility.¹⁵²

The Siting Board finds, given the totality of the mitigation measures proposed by Wood Duck Solar, the nature of the surrounding property, and the mitigation measures the Siting Board has imposed in Appendix A, the statutory purposes are met by the Project.

Compliance with all Legal Requirements

KRS 278.714(3) frames the decision to be made by the Siting Board for proposed nonregulated transmission lines:

Action to grant the certificate shall be based on the board's determination that the proposed route of the line will minimize significant adverse impacts on the scenic assets of Kentucky and that the Applicant will construct and maintain the line according to all applicable legal requirements. In addition, the board may consider the interstate benefits expected to be achieved by the proposed construction or modification of electric transmission facilities in the Commonwealth. If the board determines that locating the transmission line will result in significant degradation of scenic factors or if the board determines that the construction and maintenance of the line

¹⁵² Application at 3.

will be in violation of applicable legal requirements, the board may deny the application or condition the application's approval upon relocation of the route of the line, or changes in design or configuration of the line.

As previously discussed, the Siting Board finds that, overall, the proposed transmission line would not have a significant adverse impact on the scenic assets of Barren County, Kentucky. Wood Duck Solar has complied, to date, with all applicable conditions relating to electrical interconnection with utilities by following EKPC interconnection process. The Siting Board finds that Wood Duck Solar's proposed transmission line meets the requirements of KRS 278.714(3), subject to the mitigation measures and conditions imposed in this Order and the attached Appendix A to this Order.

Based upon the case record, the Siting Board finds Wood Duck Solar's application for a construction certificate for a nonregulated transmission line should be approved. The transmission line will have minimal effects on the scenic surrounding and Wood Duck Solar has stated it will abide by the NESC in the construction and operation of the transmission line. The Siting Board conditions its approval upon fully implementing all mitigation measures and other requirements described herein and listed in Appendix A to this Order.

CONCLUSION

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that Wood Duck Solar has presented sufficient evidence to support the issuance of a Construction Certificate to construct the proposed merchant solar facility. The Siting Board conditions its approval upon the full implementation of all mitigation measures and other requirements described herein and listed in Appendix A to this Order.

A map showing the location of the proposed solar generating facility is attached hereto as Appendix B.

IT IS THEREFORE ORDERED that:

1. Wood Duck Solar's application for a Construction Certificate to construct an approximately 100 MW merchant solar electric generating facility and an approximately 500-foot nonregulated transmission line in Barren County, Kentucky, is conditionally granted subject to full compliance with this Order, including the mitigation measures and conditions prescribed in Appendix A.
2. Wood Duck Solar shall fully comply with the mitigation measures and conditions prescribed in Appendix A to this Order.
3. In the event mitigation measures within the body of this Order conflict with those prescribed in Appendix A to this Order, the measures in Appendix A shall control.
4. This case is closed and removed from the Siting Board's docket.

KENTUCKY STATE BOARD ON ELECTRIC
GENERATION AND TRANSMISSION SITING



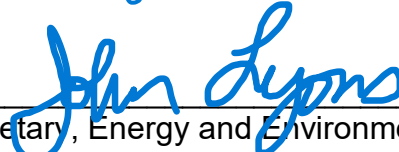
Chairman, Public Service Commission



Commissioner, Public Service Commission



Commissioner, Public Service Commission



Secretary, Energy and Environment Cabinet,
or her designee



Secretary, Cabinet for Economic Development,
or his designee



Tommy Gurn, Chair Joint Planning and
Zoning, ad hoc member

by Alt
w/ permission

ATTEST:



Executive Director
Public Service Commission
on behalf of the Kentucky State
Board on Electric Generation
and Transmission Siting



APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2024-00337 DATED NOV 14 2025

MITIGATION MEASURES AND CONDITIONS IMPOSED

The following mitigation measures and conditions are hereby imposed on Wood Duck Solar LLC (Wood Duck Solar) to ensure that the facilities proposed in this proceeding are constructed as ordered.

1. A final site layout plan shall be submitted to the Siting Board upon completion of the final site design. Deviations from the preliminary site layout should be clearly indicated on the revised graphic. Those changes could include, but are not limited to, location of solar panels, inverters, transformers, substation, operation and maintenance building, transmission line route, or other Project facilities and infrastructure.

2. Any change in the Project boundaries from the information that formed this evaluation shall be submitted to the Siting Board for review.

3. The Siting Board will determine whether any deviation in the boundaries or site layout plan is likely to create a materially different pattern or magnitude of impacts.

4. Wood Duck Solar shall provide the date that construction will commence to the Siting Board and the Energy and Environment Cabinet (EEC), Division of Waste Management, 30 days prior to the commencement of construction of the Project.

5. Wood Duck Solar shall submit a status report to the Siting Board every six months, until the Project begins generating electricity, to update the Siting Board on the status of the Project. The report shall reference this case number and be filed in post-case correspondence in this case.

6. Wood Duck Solar shall comply with all requirements in KRS 278.710 for monitoring by the EEC.

7. Prior to construction, Wood Duck Solar shall provide a finalized Emergency Response Plan to the local fire district, first responders, and any county emergency management agency. Wood Duck Solar shall provide site-specific training for local emergency responders at their request. Access for fire and emergency units shall be set up after consultation with local authorities.

8. Wood Duck Solar or its contractor will control access to the site during construction and operation. All construction entrances will be gated and locked when not in use.

9. Wood Duck Solar's access control strategy shall also include appropriate signage to warn potential trespassers. Wood Duck Solar must ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners.

10. The security fence must be installed prior to activation of any electrical installation work in accordance with National Electrical Safety Code (NESC) standards. The substation shall have its own separate security fence and locked access installed in accordance with NESC standards.

11. Existing vegetation between solar arrays and nearby roadways and homes shall be left in place to the extent feasible to help minimize visual impacts and screen the Project from nearby homeowners and travelers. Wood Duck Solar will not remove any existing vegetation except to the extent it must remove such vegetation for the construction and operation of Project components.

12. If any components of the facility are visible to neighboring homes after construction, Wood Duck Solar shall assess the feasibility of a screening plan, including consulting neighbors to determine whether there are adverse impacts to their viewshed. If a screening plan is considered, regardless of whether it is ultimately implemented, notice of such consideration shall be filed with the Siting Board.

13. To the extent that an affected adjacent property owner indicates to Wood Duck Solar that a visual buffer is not necessary, Wood Duck Solar will obtain that property owner's written consent and submit such consent in writing to the Siting Board.

14. Wood Duck Solar shall implement planting of native evergreen species as a visual buffer to mitigate visual viewshed impacts, in areas where those viewshed impacts occur from residences or roadways directly adjacent to the Project and there is not adequate existing vegetation. If it is not adequate, then vegetation ten feet thick reaching six feet at maturity (in four years) will be added by Wood Duck Solar between Project infrastructure and residences, or other occupied structures, with a line of sight to the facility to the reasonable satisfaction of the affected adjacent property owners. Planting of vegetative buffers may be done over the construction period; however, Wood Duck Solar should prioritize vegetative planting at all periods of construction to reduce viewshed impacts. All planting shall be done prior to the operation of the facility.

15. Wood Duck Solar shall cultivate at least two acres of native, pollinator-friendly species onsite.

16. Wood Duck Solar shall carry out visual screening consistent with the plan proposed in its application, SAR, and the maps included, and ensure that the proposed new vegetative buffers are successfully established and developed as expected over

time. Should vegetation used as buffers die over time, Wood Duck Solar shall replace plantings as necessary.

17. Wood Duck Solar is required to limit construction activity, process, and deliveries to the hours between 8 a.m. and 5 p.m. local time, Monday through Saturday. The Siting Board directs that construction activities that create a higher level of noise, such as pile-driving, will be limited to 9 a.m. to 5 p.m. local time, Monday through Friday. Non-noise causing and non-construction activities can take place on the site between 7 a.m. and 10 p.m. local time, Monday through Sunday, including field visits, arrival, departure, planning, meetings, mowing, surveying, etc.

18. If the pile-driving activity occurs within 1,500 feet of a noise-sensitive receptor, Wood Duck Solar shall implement a construction method that will suppress the noise generated during the pile-driving process (i.e., semi-tractor and canvas method; sound blankets on fencing surrounding the solar site; or any other comparable method). Wood Duck Solar can forego using noise suppression measures if it employs a panel installation method that does not use pile driving, so long as that method does not create noise levels similar to pile driving.

19. Wood Duck Solar shall notify residents and businesses within 2,400 feet of the Project boundary about the construction plan, the noise potential, any mitigation plans, and its Complaint Resolution Program referred to in Item 37 of Appendix A, at least one month prior to the start of construction.

20. Wood Duck Solar shall coordinate with Woodland United Baptist Church and Cemetery to limit construction activities during their services, including funerals.

21. Wood Duck Solar shall place panels, inverters, and substation equipment consistent with the distances to noise receptors to which it has committed in its maps and site plans.

22. Wood Duck Solar shall fix or pay for repairs for damage to roads and bridges resulting from any vehicle transport to the site. For damage resulting from vehicle transport in accordance with all permits, those permits will control.

23. Wood Duck Solar shall comply with all laws and regulations regarding the use of roadways.

24. Wood Duck Solar shall implement ridesharing between construction workers when feasible, use appropriate traffic controls, or allow flexible working hours outside of peak hours to minimize any potential traffic delays during AM and PM peak hours.

25. Wood Duck Solar shall consult with the Kentucky Transportation Cabinet (KYTC) regarding truck and other construction traffic and obtain necessary permits from the KYTC.

26. Wood Duck Solar shall consult with the Barren County Road Department (Barren County Road Department) regarding truck and other construction traffic and obtain any necessary permits from the Barren Road Department.

27. Wood Duck Solar shall develop special plans and obtain necessary permits before transporting heavy loads, especially the substation transformer, onto state or county roads.

28. Wood Duck Solar shall comply with any road use agreement executed with the Barren Road Department. Such an agreement might include special considerations

for overweight loads, routes utilized by heavy trucks, road weight limits, and bridge weight limits.

29. Wood Duck Solar shall develop and implement a traffic management plan to minimize the impact on traffic flow and keep traffic safe. Any such traffic management plan shall also identify any traffic-related noise concerns during the construction phase and develop measures that would address those noise concerns.

30. Wood Duck Solar shall properly maintain construction equipment and follow best management practices related to fugitive dust throughout the construction process, including the use of water trucks. Dust impacts shall be kept at a minimal level. The Siting Board requires Wood Duck Solar's compliance with 401 KAR 63:010.

31. If any person shall acquire or transfer ownership of, or control, or the right to control the Project, by sale of assets, transfer of stock, or otherwise, or abandon the same, Wood Duck Solar or its successors or assigns shall request explicit approval from the Siting Board with notice of the request provided to the Barren County Fiscal Court. In any application requesting such abandonment, sale, or change of control, Wood Duck Solar shall certify its compliance with KRS 278.710(1)(i).

32. As applicable to individual lease agreements, Wood Duck Solar, its successors, or assigns will abide by the specific land restoration commitments agreed to by individual property owners as described in each executed lease agreement.

33. Wood Duck Solar shall file a complete and explicit decommissioning plan with the Siting Board. This plan shall commit Wood Duck Solar to remove all facility components, above ground and below ground, regardless of depth, from the Project site. Upon its completion, this plan shall be filed with the Siting Board or its

successors. The decommissioning plan shall be completed at least one month before the construction of the Project.

34. Wood Duck Solar shall file a bond securing the performance of the decommission plan with the Barren County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan and naming Barren County as an obligee, or third-party beneficiary of the bond (secondary, in addition to individual lessors), in addition to the lessors of the subject properties insofar as the leases contain a decommissioning bonding requirement so that Barren County will have the authority to draw upon the bond to effectuate the decommissioning plan. For land with no bonding requirement otherwise, Barren County shall be the primary beneficiary or obligee of the decommissioning bond for that portion of the Project. The bond shall be filed with the Barren County Treasurer or with a bank, title company, or financial institution reasonably acceptable to the county. The acceptance of the county of allowing the filing the bond with an entity other than the Fiscal Court, through the Barren County Treasurer, can be evidenced by a letter from the Judge-Executive, the Fiscal Court, or the County Attorney. The bond(s) shall be in place at the time of commencement of operation of the Project. The bond amount shall be reviewed every five years at Wood Duck Solar's expense to determine and update the expected cost of the decommissioning plan. This review shall be conducted by an individual or firm with experience or expertise in the costs of removal or decommissioning of electric generating facilities. Certification of this review shall be provided to the Siting Board or its successors and the Barren County Fiscal Court. Such certificate shall be by letter and shall include the current amount of the anticipated bond and any change in the costs of removal or decommissioning.

35. Wood Duck Solar or its assigns shall provide notice to the Siting Board, if, during any two-year (730 days) period, it replaces more than 20 percent of its facilities. Wood Duck Solar shall commit to removing the debris and replaced facility components from the Project site and from Barren County upon replacement. If the replaced components are properly disposed of at a permitted facility, they do not have to be physically removed from Barren County. However, if the replaced facility components remain in the County, Wood Duck Solar must inform the Siting Board of the location where the components are being disposed.

36. Any disposal or recycling of Project equipment, during operations or decommissioning, shall be done in accordance with applicable laws and requirements.

37. Wood Duck Solar shall initiate and maintain the Complaint Resolution Program provided to the Siting Board in the case record to address any complaints from community members. Wood Duck Solar shall also submit annually a status report associated with its Complaint Resolution Program, providing, among other things, the individual complaints, how Wood Duck Solar addressed those complaints, and the ultimate resolution of those complaints identifying whether the resolution was to the complainant's satisfaction.

38. Wood Duck Solar shall provide the Joint City-County Planning Commission of Barren County contact information for individuals within the company that can be contacted with concerns. This shall include contact information for the general public to reach individuals that can address their concerns. Wood Duck Solar shall update this contact information yearly, or within 30 days of any change in contact information.

39. Wood Duck Solar shall adhere to the proposed transmission route presented in the application. Should Wood Duck Solar find it necessary to include any parcel of land not included in this application, in order to finalize the route of the proposed transmission line, Wood Duck Solar shall return to the Siting Board to request an amendment to the location of the transmission line.

40. Prior to beginning any site preparation or construction, Wood Duck Solar shall make all reasonable efforts, in good faith, to resolve or mitigate issues the National Park Service (NPS) has with the Project, and to obtain explicit approval for the Project from the NPS or a written statement from the NPS that it no longer objects to the Project. Wood Duck Solar shall document any communications between Wood Duck Solar and the NPS and file a copy of such communications into the post case file if written and a summary of such communications into the post case file if oral. If Wood Duck Solar, after reasonable efforts, taken in good faith, is not able to obtain Project approval from the NPS or an explicit statement from the NPS that it no longer objects to the Project, Wood Duck Solar, prior to beginning any site preparation or construction, shall file sworn statements from representative(s) of Wood Duck Solar documenting all efforts to contact the NPS and to address the NPS's concerns, and explaining why Wood Duck Solar contends that it has exhausted a reasonable efforts to obtain approval from the NPS or a statement from the NPS that it no longer objects to the Project.

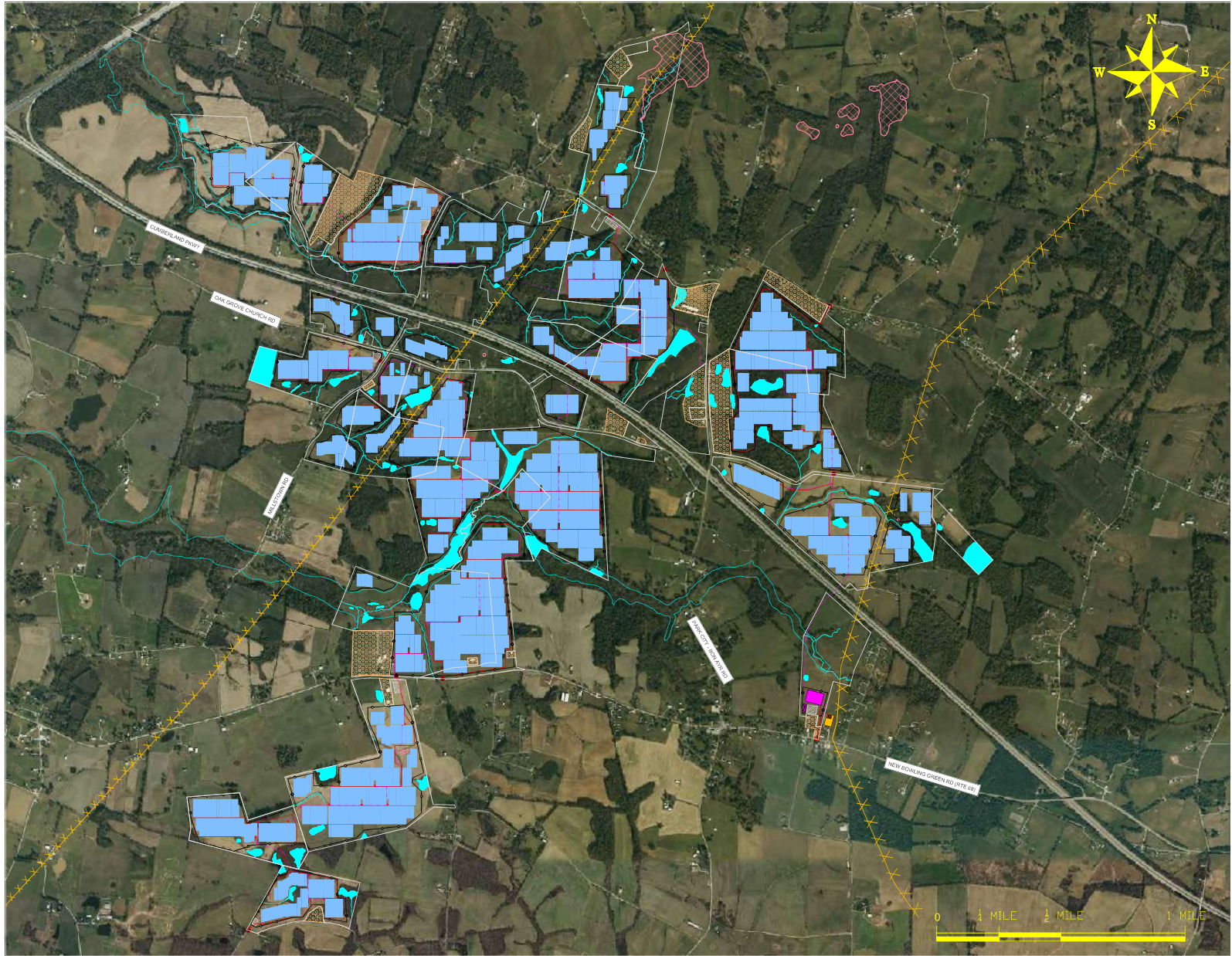
41. The Siting Board can reconvene to enforce any of the above mitigation measures until the generation of electricity commences.

42. Within 30 days of service of this Order, Wood Duck Solar shall send a copy of this Order to all the adjoining landowners who previously were required to receive notice of this Project.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING IN
CASE NO. 2024-00337 DATED NOV 14 2025

ONE PAGE TO FOLLOW



LEGEND

PROJECT BOUNDARY	
SOLAR MODULE ROWS	
ELECTRICAL EQUIPMENT	
PROPOSED POI	
PROJECT SUBSTATION	
EKPC SUBSTATION	
O&M BUILDING	
LAYDOWN & PARKING AREA	
TRANSMISSION LINE	
INVERTER MV CABLE	
FENCE	
PARCELS	
ACCESS ENTRANCE & ACCESS ROAD	
STREAMS	
WETLANDS	
100-YEAR FLOODPLAIN	
KARST AREA	
EXCLUSION AREA	

PROJECT DATA	
PARCEL AREA	2259.4 ACRES
BUILDABLE AREA	1126.7 ACRES
FENCED AREA	1244.7 ACRES
AC SYSTEM SIZE	100 MW-AC
DC SYSTEM SIZE	135 MWp
PROPOSED MODULE	CS7N-MB-AG
MODULE POWER	660Wp
MODULE QUANTITY	204,552
PROPOSED INVERTER	FS4200M
INVERTER POWER	4MW-AC
INVERTER QUANTITY	25
DC/AC RATIO	1.35
RACKING SYSTEM	SINGLE AXIS TRACKING
ESTIMATED GCR	34%
DC SYSTEM VOLTAGE	1500V
RACKING SYSTEM	1P SAT

- NOTES:
- 1) PROJECT AREAS ARE SUBJECT TO CHANGE PENDING FUTURE DESIGN CONSTRAINTS AND LOCAL PERMITTING CONSIDERATIONS.
 - 2) WETLANDS SETBACK = 25'
 - 3) STREAM SETBACK = 25'
 - 4) NON-PARTICIPATING OCCUPIED STRUCTURE SETBACK = 300'
 - 5) NON-PARTICIPATING PARCEL SETBACK = 50'
 - 6) FEMA 100-YEAR FLOOD PLANE SETBACK = 25'
 - 7) COUNTY & STATE ROAD SETBACK = 100'
 - 8) OIL & GAS PIPELINE SETBACK = 100'
 - 9) TRANSMISSION LINE SETBACK = 100'
 - 10) KARST AREA SETBACK = 50'

DRAWING TITLE	PROJECT TITLE	DATE	GEENEX SOLAR		COPYRIGHT © 2023 BY GEENEX SOLAR LLC (GEENEX) ALL RIGHTS RESERVED, THIS DRAWING OR SPECIFICATION IS PROTECTED BY U.S. COPYRIGHT LAW AND INTERNATIONAL TREATIES. IT HAS BEEN PREPARED EXPRESSLY FOR THE CLIENT NAMED IN THE PROJECT TITLE BOX HEREIN. TO BE USED ONLY IN CONNECTION WITH THE GEENEX PROJECT FOR WHICH IT WAS CREATED, NO OTHER USE, DISSEMINATION OR DUPLICATION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF GEENEX.
OVERALL	WOOD DUCK SOLAR	14 JUL 2023	1000 NC MUSIC FACTORY BLVD		
SITE PLAN	100MW-AC	SCALE AS SHOWN	SUITE C3		
		DRAWN STHA	CHARLOTTE, NC 28206		
		REVISION 8			

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