Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

**Siting Board 1-1**:

Submit a copy of the leases or purchase agreements, including options, separate

agreements, or deeds which Banjo Creek has entered into in connection with the proposed solar

facility, including the agreements for each of the parcels of the project.

**Response**: Banjo Creek has entered into four real property lease agreements to date in

connection with the real estate footprint for the proposed solar facility and any associated

transmission infrastructure. Two of these agreements contain purchase options for no more than

10 acres each. Lease agreements have been submitted separately in conjunction with a petition

for confidentiality.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

**Siting Board 1-2**:

Detail any contracts by which Banjo Creek has paid, has negotiated to pay, or any

compensation paid to non-participating landowners, whether cash or otherwise, near the project.

Include the terms of the agreements and which properties are involved in terms of distance to the

project boundaries.

**Response**: Banjo Creek has not executed any contracts or agreements with non-participating

landowners to date that are negotiated to pay, contracted to pay, or paid any compensation,

whether cash or otherwise, near the Project.

### **Siting Board 1-3**:

Provide a schedule for the Project, starting from the receipt of the proposed certificate for construction to the completion of the Project, including the length of each construction phase.

Include when the peak construction would occur within the timeline.

### **Response**:

The following table is subject to change.

Milestone	Anticipated Start Date (subject to change)
KY PSC Approval	Q1 2024
Notice to Proceed	Q3 2026
Civil Work Initiated	Q3/Q4 2026 (Typically 6 months or less)
Mechanical & Electrical Work "Peak	Q4 2026 (Typically 15 months)
Construction"	
Commissioning	Q4 2027
Commercial Operation Date	End of Q4 2027

Case No. 2023-00263 Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

**Siting Board 1-4**:

Refer to the Application, Record of Environmental Violations at unnumbered page 16.

Provide the entities with a direct ownership interest in Banjo Creek. Also provide the corporate

structure of those entities.

**Response**: Banjo Creek Solar LLC is 100% owned by Glennmont CEF IV Solar Development

LLC, a Delaware limited liability company, which has not violated any state or federal

environmental laws or regulations, nor are there any pending actions against it or any entity with

direct ownership interest in Banjo Creek Solar LLC.

Siting Board 1-5:

Provide a list of permits that will be required from any other local, state, or federal

agencies for the project. Include in the response the status of those permits.

**Response**: The following is a non-exhaustive list of typical permits that Banjo Creek assumes is

presently required along with an additional like of potential permits Banjo Creek may be

required to obtain for solar projects of similar size and scope. Other permits may be required and

this list is subject to change based upon future analysis, studies and findings.

### Siting Board 1-6:

Refer to the Site Assessment Report (SAR), Appendix C, Preliminary Site Layout.

Provide a one-page site map that contains the locations water features, including rivers, streams,

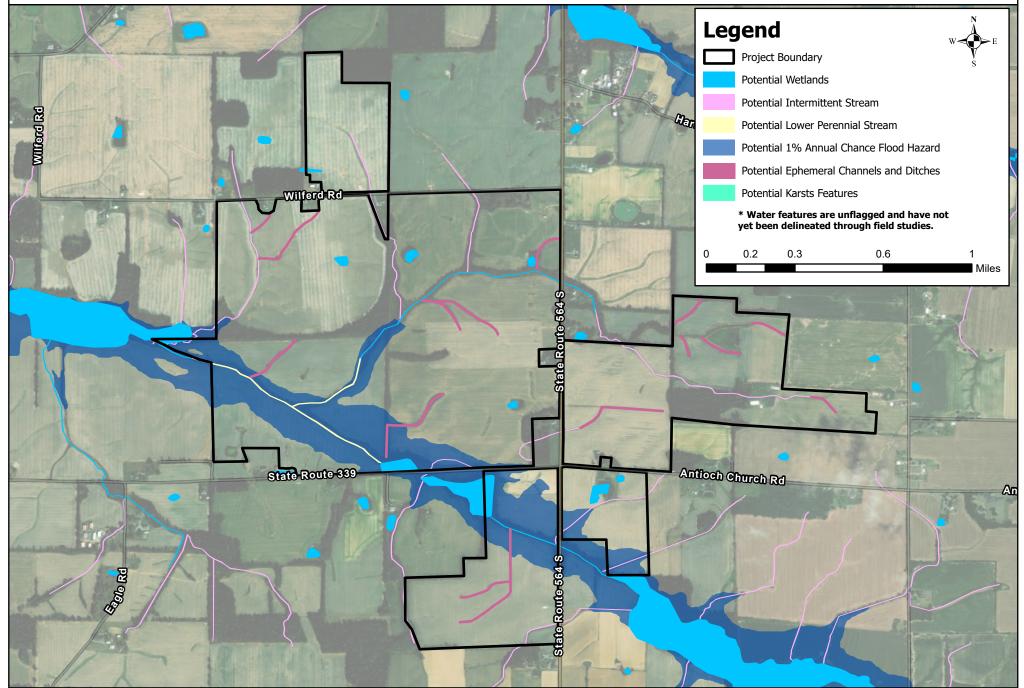
lakes, and ponds. Also include any known or suspected karst features.

**Response**: See attached map.

### Banjo Creek Solar LLC

**Potential Water Resources** 





KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION APPLICATION

231019-0930\_BanjoCreekSolar\_WaterResources.pdf Date Exported: 10/19/2023 09:30 AM

Siting Board 1-7:

Explain whether the perimeter security will be we installed according to National Electric Safety Code (NESC) standards. Include in the response whether the fencing will be installed before any electrical work begins.

**Response**: Perimeter security fencing will be installed according to NESC standards. Electrical work may be installed before the fencing is complete, but no Project energization or commissioning work will begin prior to completion of the perimeter security fencing.

### **Siting Board 1-8**:

Provide the security measures for the operations and maintenance (O&M) areas and substation within the Project's boundaries.

**Response**: Banjo Creek's security measures will be in compliance with NESC standards and NERC requirements at a minimum for the O&M areas and Project substation.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-9:

Explain whether any existing structures on the Project site will be demolished during

construction.

**Response**: Banjo Creek's plan is to minimize the amount of demolition of existing structures

during construction. However, in an event an existing structure is targeted for removal, the

impacted landowner will be notified in a timely manner and any required studies under NEPA

will be properly completed prior to demolition. Below is a non-exhaustive list of potential

existing structures presently known to exist that could be subject to removal or demolition:

1. One barn on Coltharp lands

2. One old hog barn on Coltharp lands

3. Two grain bins on Coltharp lands

4. One irrigation pivot point on Wilferd lands.

5. Three barns on Diel lands.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-10:

Refer to the SAR, Appendix C, Preliminary Site Layout. Explain whether there will be

vegetation clearing for construction. Provide in the response the number of acres that will be

cleared and any permits that will be required.

**Response**: The Project seeks to optimize the use of open farmland and minimize vegetation

clearing. The Project's current design contemplates clearing up to 180 acres of vegetation

(mostly trees) for construction to respect setbacks from non-participating landowners. No

permits are anticipated for clearing. TVA's NEPA process will govern any permitting, if

required, for any such timber-clearing activities.

Regulatory Authority	Permit/ Approval	Description	Status
Federal (Non-	exhaustive list. Other per	rmits may be required.)	
USFWS	Endangered Species Act (ESA) of 1973, as amended	Consultation with USFWS; Incidental Take Permit, if required  Required for Federal agencies authorizing, funding, permitting, or carrying out an action. Prohibits the take (including killing, capturing, selling, trading, and transport) of species listed under ESA Section 7.	Outreach to begin Q2 2025
USFWS	Bald and Golden Eagle Protection Act (BGEPA) of 1940, as amended	Consultation with USFWS; Incidental Take Permit, if required  Required for Federal agencies authorizing, funding, permitting, or carrying out an action. Prohibits the take of bald and golden eagles without prior authorization by the USFWS. Take includes the killing, injuring, or disturbing of present or nesting eagles.	Outreach to begin Q2 2025
USFWS	Migratory Bird Treaty Act (MBTA) of 1918, as amended	Consultation with USFWS; Incidental Take Permit, if required.  Required for Federal agencies authorizing, funding, permitting, or carrying out an action. Prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.	Outreach to begin Q2 2025
USEPA	Phase I Environmental Site Assessment	Determines the presence, or lack thereof, of recognized environmental conditions associated with the property in accordance with the American Society for Testing and Materials E 1527-13 guidance document.  Certain actions can trigger need for a Phase I Environmental Site Assessment. Those that could be applicable to the Project include the submission of an application to a public agency for change-of-use or other discretionary land use permit, or the request by a regulatory agency that suspects environmental contamination liabilities on the property.  Not required unless a federal agency suspects environmental contamination liabilities in the Project area, or for due diligence purposes associated with lending or investors.	Assessment to begin Q4 2024
USEPA	Spill Prevention, Control, and Countermeasures (SPCC) Plan	Describes measures to prevent oil discharges and to prepare personnel to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge from project facilities or infrastructure. Used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource during emergency response.  Required if the total on-site oil storage capacity exceeds 1,320 gallons.	Outreach to begin Q2 2025
EEC	Energy & Environment Cabinet; Natural Heritage Review	Heritage reviews are informational in nature, and result in a document informing a requestor if there are sites of conservation concern near a proposed project. In addition, potential concerns in the project area are identified. The EEC compiles information from many agencies and sources to track where professionals have confirmed the presence of rare or endangered species and of good examples of natural areas or unusual habitats.	Outreach to begin Q2 2025

Regulatory Authority	Permit/ Approval	Description	Status
TVA	NEPA Review: Record of Decision, Finding of No Significant Impact, or Categorical Exclusion	TVA conducts environmental reviews in accordance with NEPA, which typically also include assessments that facilitate compliance with other environmental review requirements, such as those under NHPA and ESA.	Review to begin Q1 2025
		Power purchase agreement with TVA.	
State / Other (I	Non-exhaustive list. Oth	er permits may be required.)	
KDOW Kentucky Pollutant Discharge Elimination System (KPDES)	National Pollutant Discharge Elimination System (NPDES) Act; General Permit (Construction Stormwater)	For stormwater discharges from construction activities causing disturbance of more than 1 acre.  The Project Site is not located in a MS4 community.	Outreach to begin Q2 2025
KDOW Floodplain Management Section	Floodplain Development Permit	Permit for floodplain impacts, elevation certificates  Land-disturbing activities in any special flood hazard area that results in an increase of the Base Flood Elevation. If a floodplain permit is needed, an authorized 401 WQC from KDOW is also required.	Outreach to begin Q2 2025
KDOW	Water Withdrawal Permit	Required for the withdrawal of public water.	Outreach to begin Q2 2025
KPDES	Wastewater Construction Permit	Required if sewers or pump stations will be constructed. If needed.	Outreach to begin Q2 2025
KHC State Historic Preservation Office	National Historic Preservation Act (NHPA) Section 106 Consultation	Federal lead agencies (TVA) consult with the SHPO regarding potential effects on historic resources.  Federal actions that would affect properties eligible for listing on the National Register of Historic Places (NRHP).	Outreach to begin Q2 2025
Interested American Indian Tribes	National Historic Preservation Act (NHPA) Section 106 Consultation	Federal lead agencies (TVA) consult with interested American Indian Tribes regarding potential effects on historic and cultural resources.  Federal actions that would affect properties eligible for listing on the NRHP.	Outreach to begin Q2 2025
Kentucky Transportation Cabinet	Encroachment Permit Bond	Permit for right-of-way encroachment  Encroachment of the right-of- way of any state highway	Outreach to begin Q2 2025
Commonwealth of Kentucky	Overweight/ Over- Dimensional Permit	Oversized loads or overweight loads on Kentucky State-maintained roads and bridges.  If the Project requires an oversize/overweight vehicle load, then a permit would be required	Outreach to begin Q2 2025
State Siting Board Approval	Kentucky State Board on Electric Generation and	Show that the Project is adhering to local ordinances and describe the anticipated Project effects to aspects of the human environment and how the Project would mitigate those.	Ongoing – Anticipated Q2 2024

Regulatory Authority	Permit/ Approval	Description	Status	
	Transmission Siting; Construction Certificate	Required for merchant plants with a generating capacity of 10 megawatts or more and for non-regulated transmission lines capable of carrying 69,000 volts or more		
PPC	Public Protection Cabinet, State Building Permit	Required for construction of certain buildings or structures. State building permits are required where there is no local permit or where a project exceeds certain thresholds in the code (e.g., specified square footage).	Outreach to begin Q2 2025	
Graves County	Building Permits	Permits are required for the construction of (1) any buildings on the property; (2) any fencing over seven (7) feet in height on the property; and (3) any telecommunications towers.	Outreach to begin Q2 2025	
Graves County	Electrical Permit		Outreach to begin Q2 2025	
Graves County	County Commercial Driveway Permit		Outreach to begin Q2 2025	
Graves County	County Floodplain Permit		Outreach to begin Q2 2025	
Other potentially required permits.				
USACE	Clean Water Act (CWA) Section 404 Permit	Permit and consultation with USACE  Required for the discharge of dredged or fill material into waters of U.S. Minimal levels of fill (<0.5 acre) may be covered under Nationwide Permit (NWP).  Impacts greater than 0.5 acres would require an Individual Permit.  The 404 permit cannot be verified until the 401 Water Quality Certification (WQC) has been authorized.	To be determined	
KDOW	CWA Section 401 WQC	Verifies that project construction would comply with state water quality standards.  USACE Section 404 Permit	To be determined	
FAA	Federal Aviation Administration (FAA); 14 CFR Part 77	Notice is required prior to the construction of any structure exceeding 200 feet above ground level or exceeding a height restriction based on the distance from an airport.	To be determined	
USDA	U.S. Department of Agriculture; Conservation Reserve Program (CRP)	If permanent facilities are constructed on land enrolled in this program, contracts with individual landowners will have to be amended or terminated to reflect the change in acreage enrolled in the CRP program.	To be determined	
Graves County Health Department	On-site sewage disposal system permit	Permit and inspection required to install onsite sewage disposal system if there is a building with bathroom facilities on the property; see http://www.gravescountyhealthdepartment.com/public-health/on-site-sewage.php	To be determined	
Department of Energy	Federal Public Utilities Regulatory Polices Act		To be determined	

### **Siting Board 1-11:**

Refer to the SAR, Appendix C, Preliminary Site Layout. Provide the species of plants that will make up the vegetative buffer.

**Response**: Banjo Creek is considering a mix of deciduous and evergreen species of plants and trees suitable for the local climate for the vegetative buffer.

Case No. 2023-00263 Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-12:

Refer to the SAR, Mitigation Measures at unnumbered page 13. Provide any mitigation

measures Banjo Creek proposes because the Project is located within a floodplain.

**Response**: If unavoidable, Banjo Creek will ensure construction of key electrical equipment

within a floodplain area will conform to electrical best practices and that which would be

required by independent, national insurance carriers. No inverters or transformers will be

installed within a floodplain unless such feature is mitigated by so elevation change adequate for

the purpose.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

3

Siting Board 1-13:

Confirm Banjo Creek has been in contact with the United States Army Corps of

Engineers or United States Fish and Wildlife in regards to this Project. If there has not been

contact, provide when the contact will occur.

**Response**: Banjo Creek must be studied under the NEPA process led by TVA which specifies

that all potentially impacted federal agencies be notified along with the public, including USACE

and USFWS representatives. TVA will engage the United States Army Corps of Engineers

(USACE) and the United States Fish and Wildlife (USFWS) as required under NEPA law with

regards to this Project.

### Siting Board 1-14:

Provide a copy of the stormwater management plan for the Project.

**Response**: A stormwater management plan will be developed by an independent engineer prior to the start of construction using the field studies, surveys and local measurement details resulting from the required NEPA studies to be led by TVA, date not yet known. The final stormwater management plan will be in compliance with both KPDES and NEPA requirements.

Case No. 2023-00263 Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-15:

Provide any geotechnical reports for the project.

**Response**: Banjo Creek will complete the geotechnical studies and reports, prior to start of construction which occurs after the TVA NEPA process is completed. Presently, TVA restricts

any Geotechnical studies (or any other similar ground disturbing Project activities) from being

completed prior to TVA's NEPA analysis is completed.

### **Siting Board 1-16**:

Refer to the Application at unnumbered page 21. Provide a copy of the Groundwater Protection Plan.

**Response**: Banjo Creek will complete a groundwater protection plan if needed, in compliance with KDOW requirements, prior to the start of construction.

Case No. 2023-00263 Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-17:

Refer to the SAR at unnumbered page 12. Provide the results of any field study that has

been conducted to locate any historic or cultural resources were found on the Project site. If the

field study has not been completed, provide when it will be completed.

**Response**: Banjo Creek will complete a historic and/or cultural resource study(ies) as part of the

NEPA process required by TVA prior to the start of construction.

Siting Board 1-18:

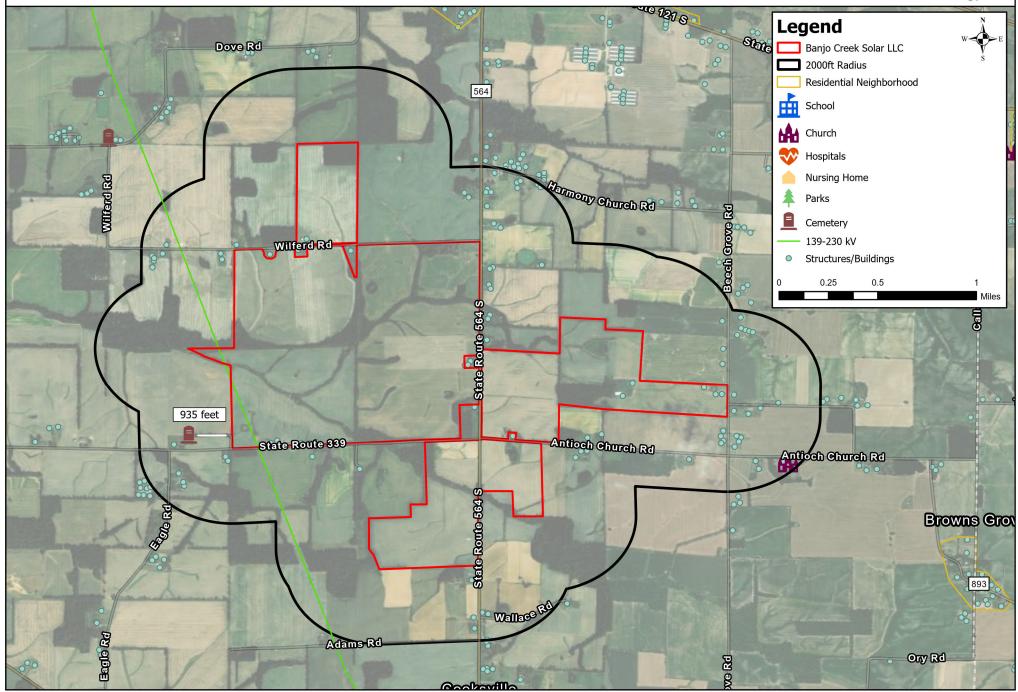
Refer to the Application, Attachment A, Context Map. Also refer to the SAR, Appendix C, Preliminary Site Layout. Provide a list of any cemeteries located within the 2,000-foot radius of the Project and within the Project boundaries. If there are cemeteries located within the Project boundary, provide the setbacks from the cemetery.

**Response**: Based upon public available records, Banjo Creek has identified one cemetery (Yarbrough Cemetery) located within 2,000ft of the Project located approximately two tenths of a mile away from the Project boundary. No cemeteries are located within the Project boundary.

### Banjo Creek Solar LLC







KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION APPLICATION

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Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-19:

Provide any communication with local emergency services on security and emergency

protocols during construction and operations. If contact has not been made, explain when that

contact will occur.

**Response**: Once the issued-for-permit drawings are completed and prior to start of construction,

Banjo Creek will coordinate with local emergency services on security and emergency protocols

for the construction and subsequent operation phases.

### Siting Board 1-20:

Provide who will control access to the site during construction and operations.

**Response**: During construction, access to the site will be controlled by the General Contractor.

Once the operations phase commences, access to the site will be managed by the O&M

**Witness**: Jonathan Flemings

contractor selected to manage the site on a day-to-day basis.

#### Siting Board 1-21:

Refer to the SAR, Appendix D, Noise and Traffic Assessment Study.

Provide:

- a. Provide the weight limits of each local roadway to be used for construction traffic.
- Provide the weight and width restrictions of all bridges that exist along State
   Route 564 South.
- c. Provide the number of worker vehicles traveling to the site each day during construction.
- d. Provide the number and approximate weight classes of the heavy and light duty trucks anticipated on site per day during the construction phase.
- e. Provide the estimated weight of the project's required substation transformer and the truck class necessary for its delivery.

#### **Response:**

- a. KY 564 and KY 339 are Class A roads with 44,000-pound Gross Vehicle Weight (GVW) limits. KY 94 and KY 303 are Class AA roads with 62,000-pound GVW limit. KY 121 and KY 80 are Class AAA roads with a 80,000-pound GVW limit. Local and County roads are not classified and have a weight limit of 36,000 pounds GVW.
- b. While KY 564 has an overall weight limit, the three bridges/culverts along KY 564 within two miles of the Project (that cross over Mayfield Creek, fork of Mayfield Creek, and tributary to Mayfield Creek) have no weight limitations.<sup>2</sup> These three

<sup>&</sup>lt;sup>1</sup> Kentucky Transportation Cabinet (KYTC). 2015. Kentucky Truck Weight Classification. Available at https://transportation.ky.gov/Planning/Documents/Weight%20Class.pdf.

<sup>&</sup>lt;sup>2</sup> KYTC 2023. Bridge Weight Limits. Available at https://maps.kytc.ky.gov/bridgeweightlimits/.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

bridges/culverts are rated to hold semi-trailer trucks which can be as heavy as 92,000

pounds per a KYTC staff member. KY 564 is a Class A road, and therefore the width

restriction is eight feet.<sup>3</sup>

c. According to Attachment F - Economic Analysis, the construction of Banjo Creek would

likely witness a maximum of approximately 323 workers at peak periods with

approximately 75 passenger vehicles traveling to and from the Project each day during

construction, seeking to maximize carpool opportunities to/from the Project.

d. Under normal construction conditions, the expected peak traffic during construction will

likely be approximately 20 trucks, including dump trucks and delivery trucks (medium to

heavy weight class) and 75 passenger vehicles per day (light weight class).

e. The weight of the transformer at the Project's substation is approximately 17,000

pounds. The Federal Highway Administration defined truck class necessary to carry this

weight is at least a Class 5 (Medium Duty)<sup>5</sup>. Banjo Creek does not expect that the truck

class required to transport the transformer, in addition to the weight of the transformer,

will exceed the weight limits of Class A roads.

Witness: Harriet Richardson Seacat

<sup>3</sup> KYTC 2023. Motor Carriers: Legal Dimensions. Available at https://drive.ky.gov/Motor-Carriers/Overweight-

Over-Dimensional/Pages/OWOD-Legal-Dimensions.aspx.

<sup>4</sup> Daelim Belefic. 2020. 4000 kVA (4 MVA) Pad Mounted Transformer. Available at

https://www.daelimtransformer.com/4-mva-pad-mounted-transformer.html.

<sup>5</sup> U.S. Department of Energy's Vehicle Technologies Office. Alternative Fuels Data Center. Available at: Alternative Fuels Data Center: Maps and Data - Vehicle Weight Classes & Categories (energy.gov)

Case No. 2023-00263 Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-22:

Explain whether any traffic stoppages will be necessary to accommodate large truck

deliveries. If yes, provide the expected locations, frequency and length of those stoppages.

**Response**: Traffic stoppages should be minimal; however, some traffic stoppage could occur

when the vehicles are exiting or entering the Project boundary from public roads as the vehicles

seek ingress and egress safely.

### Siting Board 1-23:

Provide any communications with the Graves County Road Department regarding permits or agreements necessary for the Project. If no communication has been initiated, explain when that contact will occur.

### Response:

Banjo Creek will coordinate with the Graves County Road Department prior to start of construction. No coordination with the Graves County Road Department has been made to date.

#### Siting Board 1-24:

Provide any communication with the Kentucky Transportation Cabinet District Engineer regarding permits or agreements necessary for the Project. If no communication has been initiated, explain when that contact will occur.

Response: Prior to start of construction, Banjo Creek will coordinate with the Kentucky

Transportation Cabinet District Engineer regarding any permits required for right of way access
or crossings. No coordination with the Graves County Road Department has been made to date.

### Siting Board 1-25:

Refer to the SAR, Appendix D, Noise and Traffic Assessment Study. Provide any traffic management plans that have been created for Project construction.

**Response**: Banjo Creek will complete a traffic management plan as necessary, in compliance with KTC requirements and NEPA, prior to start of construction.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-26:

Detail any communications with members of the public, including neighboring

landowners, regarding construction noise.

**Response**: Banjo Creek voluntarily invited adjacent landowners to an Open house on April 1<sup>st</sup>,

2023, as well as, to a Community Meeting on June 6<sup>th</sup>, 2023. In both public meetings, Banjo

Creek representatives provided an oral presentation of the Project, its proposed layout and its

anticipated high-level construction timeline seeking feedback from potentially affected neighbors

in an effort to accommodate the concerns as much as possible. Banjo Creek is proposing to

maintain a buffer of at least 300ft (similar in size to an American football field) from any PV

module to the nearest non-residence. Under normal conditions, the Project will limit construction

activity and deliveries to the hours between 7 a.m. and 7 p.m. local time, Monday through

Saturday with non-noise causing construction activities between 6 a.m. and 11 p.m. local time,

Monday through Sunday, including but not limited to construction events such as field visits,

arrival, departure, planning, meetings, surveying and commissioning. Banjo Creek does not

presently envision a necessity to deviate from the assumption of working under normal

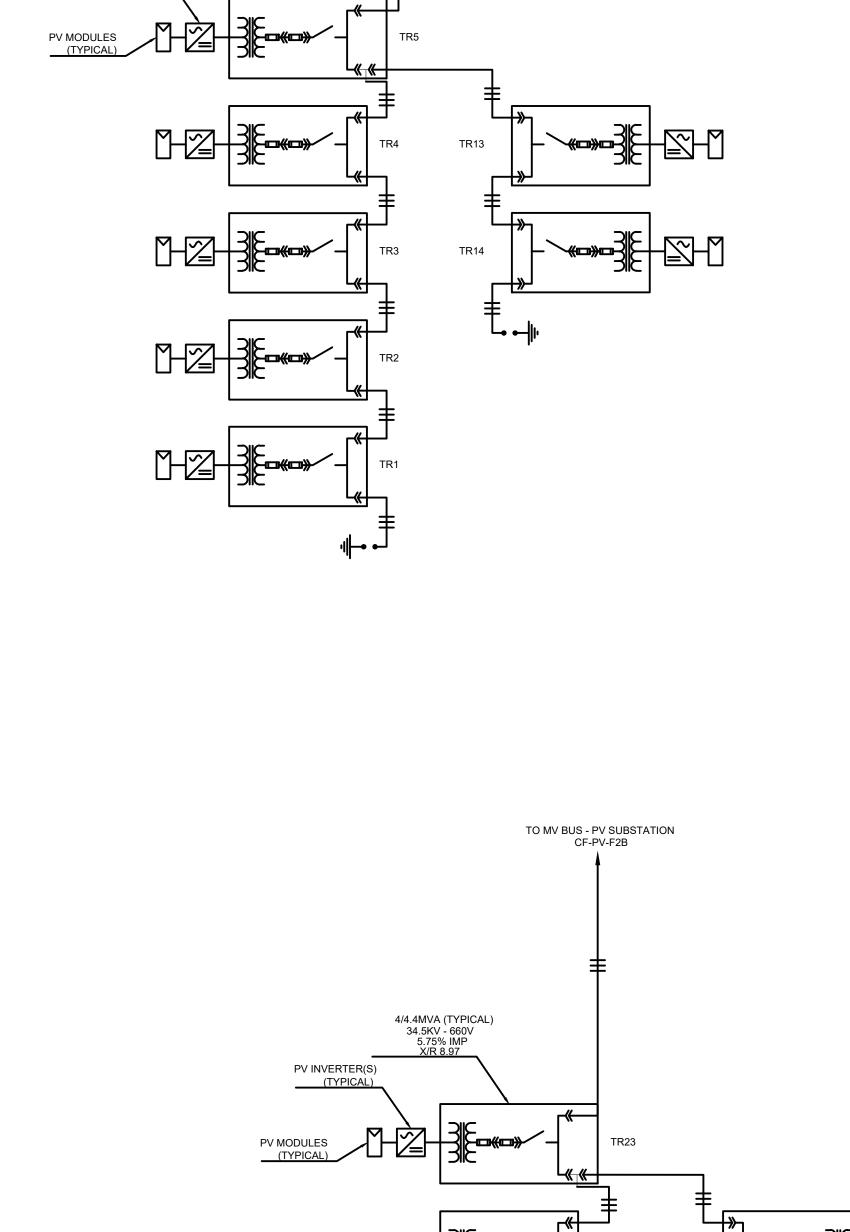
conditions given the proposed construction timeline is sufficient to plan and build the Project

accordingly.

### Siting Board 1-27:

Provide an Electrical One-Line diagram of the Project.

**Response**: See attached.



TR21

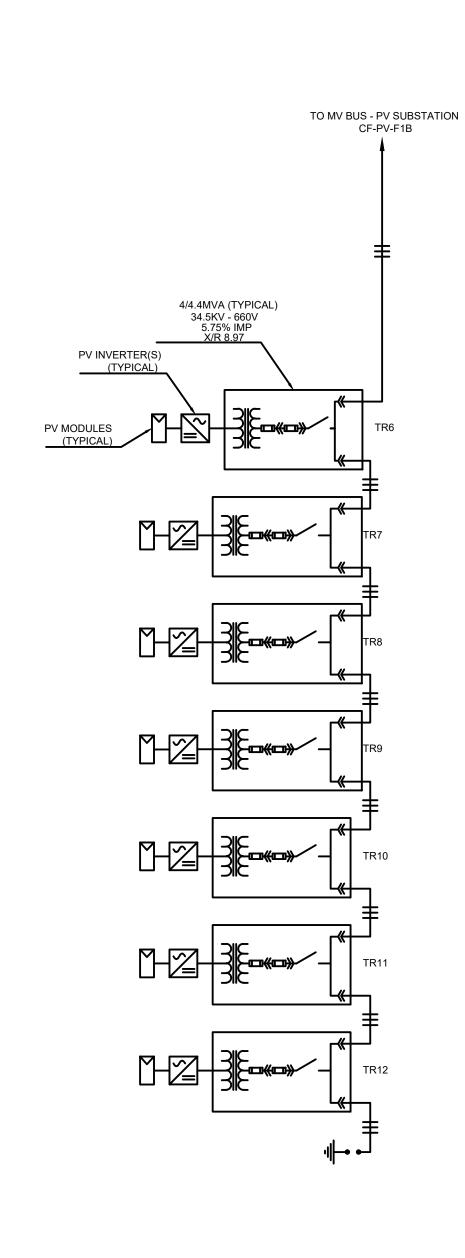
TR22

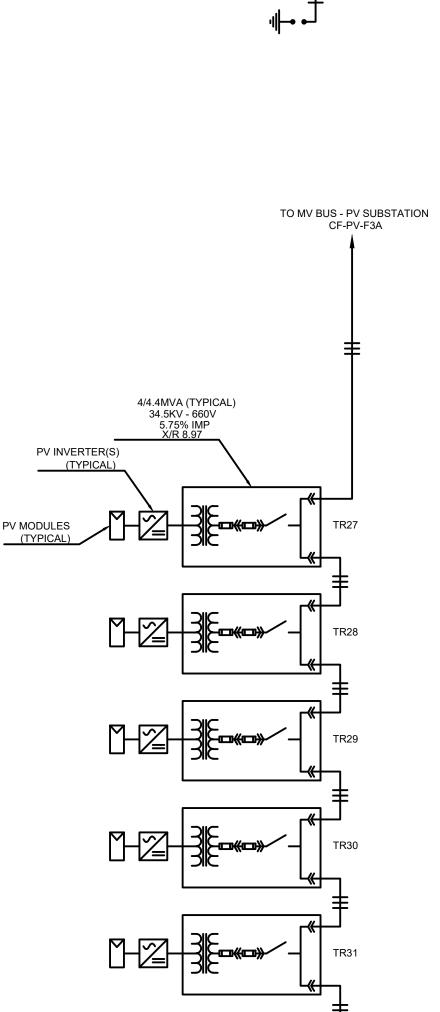
TO MV BUS - PV SUBSTATION CF-PV-F1A

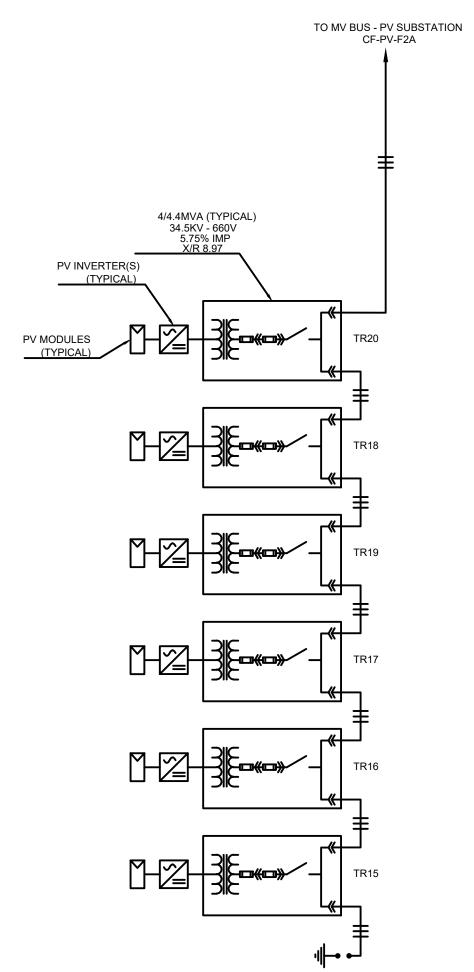
4/4.4MVA (TYPICAL)

PV INVERTER(S)

(TYPICAL)









GREENGO ENERGY US, INC. 1900 South Blvd, Suite 306 Charlotte, NC 28203 +1 (704) 390 8966

PROFESSIONAL SEAL

PHOTOVOLTAIC & BATTERY STORAGE POWER PLANT 120.00 MWac / 156.01 MWp BANJO CREEK SOLAR LLC, KENTUCKY, UNITED STATES. NOT FOR CONSTRUCTION

**REVISIONS** 

# DATE COMMENT

B 10-18-22 Capacity updated
A 09-28-22 First Issue PROJ#
DRWN RG
CHKD CP, IH
SCALE N/S
PAGE 01 OF 01

PRELIMINARY

NOT FOR CONSTRUCTION

SINGLE LINE DIAGRAM 34.5 kV (PV FEEDERS)

ELE-DRW-201

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-28:

Provide information on the specifications, model number, and cutsheets of the

photovoltaic (PV) cell/solar panels to be used.

**Response**: Banjo Creek remains technology agnostic as it has not yet selected the final

technology package including the solar PV module to be purchased and installed on the Project.

Banjo Creek is incentivized to use domestically manufactured components, such as the First

Solar Series 7 panel manufactured from a newly announced Alabama production facility to

capture increased economic benefits under the Inflation Reduction Act. Beyond FSLR, new

USA domestic PV module manufacturing announcements should offer sufficient options to "Buy

American" when the Project seeks to purchase this important key equipment. However, for

illustrative purposes and to address the KY Siting Board's question more directly, please refer to

the attached FSLR data sheets as an example for a competitive PV technology under Banjo

Creek's consideration.



### Series 7 TR1.

### **525-550 Watt Thin Film Solar Module**



Series 7 *TR1* thin film solar modules combine First Solar's thin film technology with an optimized structural design to deliver improved efficiency, enhanced installation velocity, and unmatched lifetime energy performance for large/utility-scale PV projects.



#### **More Lifetime Energy per Nameplate Watt**

- Industry's best (0.3%/yr) warranted degradation rate (>89% power output after 30 years)
- Superior temperature coefficient, spectral and shading response



### **Unmatched Quality and Reliability**

- End-to-end manufacturing process for globally consistent quality
- · Tested and certified to IEC standards and beyond
- · Durable glass/glass construction
- Immune to and warranted against power loss from cell cracking
- 30-year Linear Performance Warranty
- · 12-year Limited Product Warranty



#### **Optimized Module Design**

- Optimized back rail mount design enhances installation velocity
- Frameless design improves soiling and snow shedding
- Dual junction box design reduces wire management complexity and cost



### **Industry's Most Eco-efficient PV Solution**

- Industry leading carbon footprint, water footprint and energy payback time
- Globally available PV module recycling services



#### **America's Solar Company**

Designed, responsibly sourced, and manufactured in the USA

### 98%

**19.7%** 

HIGH BIN EFFICIENCY

WARRANTY START POINT

0.3%

LINEAR PERFORMANCE WARRANTY

WARRANTED ANNUAL DEGRADATION RATE

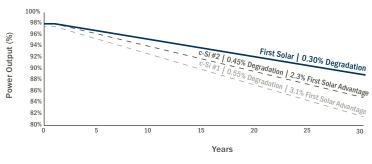


### First Solar Lifetime Energy Advantage

From 30 Year Warranted Annual Power Degradation



Learn more about First Solar and Series 7 TR1 at firstsolar.com/S7



### Series 7 TR1.

### **Electrical Specifications**

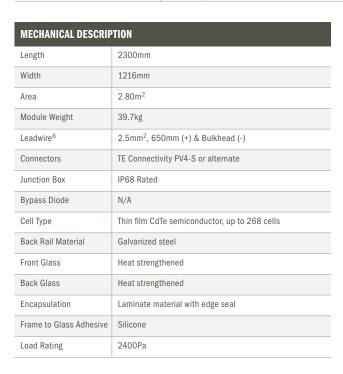


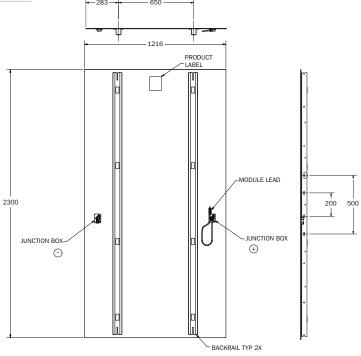
MODEL TYPES: FS-7XXXA-TR1 (XXX = NOMINAL POWER) RATINGS AT STANDARD TEST CONDITIONS (1000W/m², AM 1.5, 25°C)²							
Nominal Power <sup>3</sup> (-0/+5%)	P <sub>MAX</sub> (W)	525	530	535	540	545	550
Efficiency (%)	%	18.8	19.0	19.1	19.3	19.5	19.7
Cell Efficiency (%)	%	19.7	19.9	20.1	20.3	20.4	20.6
Voltage at P <sub>MAX</sub>	V <sub>MAX</sub> (V)	186.0	186.9	187.8	188.7	189.6	190.4
Current at P <sub>MAX</sub>	I <sub>MAX</sub> (A)	2.82	2.84	2.85	2.86	2.88	2.89
Open Circuit Voltage	V <sub>OC</sub> (V)	226.1	226.7	227.2	227.7	228.2	228.8
Short Circuit Current	I <sub>SC</sub> (A)	3.04	3.05	3.06	3.06	3.07	3.08
Maximum System Voltage	V <sub>SYS</sub> (V)	1500 <sup>5</sup>					
Limiting Reverse Current	I <sub>R</sub> (A)	5.0					
Maximum Series Fuse	I <sub>CF</sub> (A)	5.0					

TEMPERATURE CHARACTERISTICS			
Module Operating Temperature Range	(°C)	-40 to +85	
Temperature Coefficient of P <sub>MAX</sub>	T <sub>K</sub> (P <sub>MAX</sub> )	-0.32%/°C [Temperature Range: 25°C to 75°C]	
Temperature Coefficient of V <sub>OC</sub>	T <sub>K</sub> (V <sub>OC</sub> )	-0.28%/°C	
Temperature Coefficient of I <sub>SC</sub>	T <sub>K</sub> (I <sub>SC</sub> )	+0.04%/°C	
Nominal Operating Cell Temperature	(°C)	43	

PACKAGING INFORMATION		
Model Type	Modules Per Pack	Packs per 53' Container
FS-7XXXA-TR1	44	Up to 10

### **Mechanical Specifications**





#### **Certifications & Tests<sup>4</sup>**

CERTIFICATIONS AND LISTINGS	EXTENDED DURABILITY TESTS	QUALITY & EHS
IEC 61215:2021 & 61730-1:2016 <sup>5</sup> ,CE	IEC TS 63209-1 Extended Stress Test	ISO 9001:2015
IEC 61701 Salt Mist Corrosion	Long-Term Sequential	ISO 14001:2015
IEC 60068-2-68 Dust and Sand Resistance	Thresher Test	ISO 45001:2018
IEC 62716 Ammonia Corrosion	PID Resistant	ISO 14064-3:2006
UL 61730 1500V Listed		EPEAT Silver Registered

Install in portrait only

- Limited power output and product warranties subject to warranty terms and conditions
- 2 All ratings  $\pm 10\%$ , unless specified otherwise. Specifications are subject to change
- 3 Measurement uncertainty applies
- 4 Testing Certifications/Listings pending
- 5 IEC 61730-1: 2016 Class II
- 6 Leadwire length from junction box exit to connector mating surface









#### Disclaimer

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Siting Board 1-29:

Provide information on where the PV cells/solar panels and the plant equipment are

manufactured.

**Response**: Final module technology components have not yet been selected, however, the

Project favors domestic manufacturing given economic incentives as derived under the Inflation

Reduction Act of 2022.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-30:

Provide the following information regarding the battery storage system:

a. Safety data sheets for the energy storage system.

b. The environmental impact of the batter storage system.

Expected life of the batteries. c.

Method to dispose of batteries at the end of the useful life. d.

How the battery storage system installation will comply with National Fire e.

Protection Association Standard 855.

**Response**: Banjo Creek has not yet selected the battery storage system technology or

manufacturer. BESS technology options continue to increase including new commercial

technologies like that which is produced by Enervenue. Enervenue is constructing a one-million-

square-foot manufacturing facility in Shelby County, Kentucky for the purposes of

manufacturing and selling commercial BESS systems. The final battery storage system selected

will be commercially insurable and will have a useful life of at least 20 years. The batteries will

be recycled at the end of their useful life as indicated in Attachment H - Decommissioning Plan.

The selected manufacturer and the General Contractor will be required to comply with the

National Fire Protection Association Standard 855.

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

Siting Board 1-31:

Provide information on any fiber optic or communication network installed as a part of

the Project and any excavation that may be required for the installation.

**Response**: An open loop, multi-mode, fiber optic network is presently envisioned to be installed

connecting inverters and transformers to the Project's power plant controller managing the

communication network. Typical installation methods require trenching and/or directional

drilling installation techniques. Project installation due diligence, best management practices

including appropriate surveys will be utilized to identify encumbrances to ensure the final design

does not negatively impact existing infrastructure.

Siting Board 1-32:

Provide the planned time for construction to begin and end each day. Explain how Banjo

Creek plans to mitigate arrivals and departures to minimize disruption to the area.

**Response**: Under normal conditions, Banjo Creek plans to conduct construction activity,

process, and deliveries to the hours between 7 a.m. and 7 p.m. local time, Monday through

Saturday. To the extent allowed by permit, the Project intends to have multiple access points to

allow safe delivery traffic ingress and egress to minimize traffic disruption.

#### Siting Board 1-33:

Provide any communication representatives of Banjo Creek have had with any of the property owners surrounding the Project. Explain whether any changes have been made to the project based upon those concerns.

#### Response:

On April 1st, 2023, representatives of Banjo Creek voluntarily held an Open House to introduce the Project to landowners located directly adjacent of the intial design. Banjo Creek representatives mailed invitations to all adjacent landowners listed on the publicly available database. The initial meeting was attended by at least nineteen Graves County residents (see the attendance sign-in sheet on page 11 of Attachment D in the Application) and consisted of a brief oral presentation of the Project followed by approximately forty-five minutes of questions and answers covering a broad array of topics. Banjo Creek's preliminary site plan was available for display and the public had an opportunity to examine the proposed layout in detail (see page 15 of Attachment D in the Application). Representatives of Banjo Creek were in attendance with the goal of capturing feedback to improve its overall design layout where possible.

At the initial public meeting, the following neighbors expressed concerns that the setback of the solar farm from their residences was not sufficient: Jan Hartsfield, Jake Hartsfield, Shane & Sandy McEndree, and Mitchell Ivy. In response to concerns heard at the 1 April Open House, Banjo Creek adjusted the site layout as follows:

- Significantly expand the setbacks on the south side of Wilferd Rd. in the vicinity of the Jake and Jan Hartsfield residences.
- Expand the setbacks from the road on the west side of State Rt 564 in front of the McEndree and Jefress and other residences on the east side of State Rt 564.

Ensure all setbacks from residences are a minimum of 300ft, particularly on the west side of the Ivy residence.

On May 15 and 16 2023, a representative of Banjo Creek Solar personally met with Jake Hartsfield and Jody Hartsfield to showcase the latest proposed layout that proposed to expand setbacks in the northwest corner of the Project, and with John Weaks to discuss layout adjustments to the latest updated Project site plan. A Banjo Creek representative also stopped at the McEndree residence to request a meeting, but Mrs. McEndree declined.

On June 6<sup>th</sup> 2023 representatives of Banjo Creek held a Community Meeting for landowners adjacent to the Project and invited other non-adjacent neighbors / local residents who expressed interest. This second voluntary public meeting held by Banjo Creek representatives was attended by at least twelve Graves County residents (see the attendance sign in sheet on page 73 of Attachment D in the Application). Once again, the public meeting consisted of a brief oral presentation of the Project followed by forty-five minutes of questions and answers. The latest proposed (and updated) preliminary site plan was on display for attendees to examine in detail (see page 101 of Attachment D in the Application). At this public meeting, Matt and Mindy Cochran expressed concerns with substation infrastructure being located too close to their residence. In response to this concern and others heard at the June 6<sup>th</sup> voluntary public community meeting, Banjo Creek adjusted the site layout again with the proposed adjustment as follows:

1. Relocate the Project substation location further north from Rt. 339 to ensure substation equipment is installed at least 300 ft north of Rt 339.

The SAR dated September 7<sup>th</sup>, 2023 reports in Section 1.7 the setbacks Banjo Creek has imposed on itself after the Open House and Community meeting were increased to:

Banjo Creek Solar, LLC

Response to Siting Board's First Request for Information

• 300-foot solar panel setback from all known residences;

100-foot solar facility setback from non-participating parcel boundaries with residences

and from state roads;

30-foot solar facility setbacks from non-participating parcels with no residences and from

county roads;

50-foot solar facility setbacks from the banks of intermittent and perennial streams and

the edges of all wetlands.

On September 12, 2023, county officials invited representatives of Banjo Creek and adjacent and

non-adjacent neighbors concerned about the Project to an informal public meeting held in the

lobby of the County's fiscal court offices. In response to suggestions and concerns raised by the

Project's neighbors, Banjo Creek's participating landowners volunteered to adjust their leases to

include in the solar leased premises land which they had reserved for other uses to further expand

the proposed setbacks.

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

In the Matter of:	
Electronic Application Banjo Creek Solar LLC Certificate of Construction for an Approximat Megawatt Electric Generating Facility in Grav County, Kentucky Pursuant to KRS 278.700 a KAR 5:110	rely 120 ) ves ) Case No. 2023-00263
CERTIFIC	CATION
This is to certify that I have supervised the responses to the Kentucky Siting Board on Electric Request for Information and that the responses to the second secon	_
my knowledge, information, and belief after reason	nable inquiry.
October 20, 2023	Jonathan Flemings
Date	Jonathan Flemings Director, Project Development