

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION
AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF BLUEBIRD)	
SOLAR LLC FOR A CERTIFICATE OF)	
CONSTRUCTION FOR AN APPROXIMATELY 100)	CASE NO.
MEGAWATT MERCHANT ELECTRIC SOLAR)	2021-00141
GENERATING FACILITY IN HARRISON)	
COUNTY, KENTUCKY PURSUANT TO KRS)	
278.700 AND 807 KAR 5:110)	

ORDER

On February 4, 2022, Bluebird Solar LLC (Bluebird Solar) filed an application with 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 of approximately 1,345 acres of land in Harrison County, Kentucky, located approximately 4 miles southwest of Cynthiana, Kentucky.

There are no intervenors in this matter. Pursuant to a procedural schedule established on February 21, 2022, Bluebird Solar responded to two rounds of discovery. A site visit was held on April 12, 2022. Siting Board consultant Wells Engineering (Wells) filed its report (Wells Report) on May 20, 2022. Bluebird Solar submitted its response to the Wells Report on May 27, 2022. A formal hearing was held on June 2, 2022. Bluebird Solar filed its responses to post-hearing requests for information on June 16, 2022. 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–.718. KRS 278.704(1) requires that an application be filed and approved by the Siting 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 local planning and zoning ordinances.

KRS 278.708(2) requires Bluebird 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 suggested by Bluebird 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 includes (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 will meet 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 Bluebird Solar; and (8) whether Bluebird Solar has good environmental compliance history.

PROPOSED FACILITY

The Project will be located on 1,345 acres near Cynthiana in Harrison County, Kentucky. The project will contain approximately 700 acres of solar photovoltaic panels with associating ground-mounted racking, 28 inverters, and a substation transformer. The Project will connect to an on-site, existing transmission line owned by East Kentucky Power Cooperative (EKPC). EKPC will build a new switchyard onsite, at Bluebird Solar's expense, to interconnect the Project.¹

DISCUSSION AND FINDINGS

I. KRS 278.708: SAR Filing Requirements and Mitigation Measures

Mitigation Measures Proposed by Bluebird Solar and Siting Board Consultant

As required by KRS 278.708(4), Bluebird Solar proposed various mitigation measures consistent with the statutes regarding traffic, noise, roadway preservation, permitting, setbacks, public safety, and scenic preservation. In accordance with KRS 278.708(5), Wells recommended mitigation measures in the following areas: site development plan, compatibility with scenic surroundings, set-back, and sound mitigation methods during construction.²

¹ Application at 4-7.

² Wells Report at 33 (filed May 20, 2022).

Bluebird Solar disagreed with the Wells Report in two main areas. Wells recommended that Bluebird Solar shroud for noise mitigation during construction.³ Bluebird Solar claimed that sound shrouding was too costly and not in accordance with Siting Board precedent.⁴ Bluebird Solar also disagreed with the setback mitigation measure proposed by Wells. The Wells Report stated that there should be setbacks from roads and property with additional larger setbacks for certain equipment.⁵ Bluebird Solar argued that because there is a Conditional Use Permit (CUP), those setbacks apply, and Wells cannot suggest another distance for setbacks.⁶

Blue Moon Energy LLC (Blue Moon Energy) has also applied for a construction certificate for a merchant generating facility in Harrison County.⁷ During proceedings in that matter, Blue Moon Energy made several requests for the Cynthiana-Harrison County-Berry Joint Planning Commission (Harrison County Planning Commission) CUP requirements to control rather than the Siting Board's mitigation measures. The Siting Board found in that case that the Harrison County Planning Commission had created a comprehensive CUP that takes into consideration many of the factors in KRS 278.710 that the Siting Board evaluates to make the determination of whether a construction certificate should be granted. The Siting Board determined that the specialized

³ Wells Report at 33.

⁴ Bluebird Solar's Response to Consultant's Report (Response to Consultant's Report) at 3 (filed May 27, 2022) and Bluebird Solar's Response to Siting Board Staff's Post-Hearing Request for Information (Response to Staff's Post-Hearing Request), Item 2 (filed June 16, 2022).

⁵ Wells Report at 33.

⁶ Response to Consultant's Report at 4.

⁷ See Case No. 2021-00414, *Electronic Application of Blue Moon Energy LLC for a Certificate of Construction for an Approximately 70 Megawatt Merchant Electric Solar Generating Facility and Nonregulated Electric Transmission Line In Harrison County, Kentucky Pursuant to KRS278.700 and 807 KAR 5:110.*

knowledge the Siting Board has relating to electric generation is not necessary to determine the work hours of the construction phase of the project. Harrison County Planning Commission routinely deals with construction in the county and has the ability to determine the work times. Therefore, the CUP was controlling on the issue of work hours.⁸

In this matter, the Bluebird Solar CUP issued by the Harrison County Planning Commission is identical to the CUP Blue Moon Energy received. Since the deviation of work hours was approved in 2021-00414, the Siting Board will also modify the construction work hours in this case to match the CUP. The Siting Board notes that only the construction hours requirement of the CUP is being adopted. Bluebird Solar must comply with all other requirements of this Order even if more stringent than the CUP.

The Siting Board has reviewed the other mitigation measures proposed by Bluebird Solar and Wells, and finds that in addition to those Bluebird Solar initially proposed, the mitigation measures set forth in Appendix A 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 its consultant's 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)

⁸ Case No. 2021-00414, Aug. 1, 2022 final Order.

proposed access 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.

Bluebird Solar submitted the required SAR with its application. The SAR contained a preliminary site plan that included existing roadways; project boundaries; property lines; overhead electric transmission lines; detention basin, with the proposed buildable area; proposed fence; proposed access road; internal roads; solar arrays; inverters; substation; and switchyard.⁹ A separate landscape plan with existing vegetative buffers and proposed landscape planting was also submitted.¹⁰ The legal boundaries of the proposed site are contained in leases, deeds, and maps of tax parcels.¹¹

A security fence meeting the National Electrical Safety Code (NESC) requirements will enclose approximately 600 acres of the site.¹² Bluebird Solar does not anticipate requiring auxiliary power during construction or operation, if it is needed, it will be received from Blue Grass Energy.¹³ Retail water is not planned for the project, but if required, the local utility will be contacted.¹⁴

The surrounding area is primarily rural agricultural land, with 75 percent

⁹ SAR, Appendix B.

¹⁰ Application, Attachment B.

¹¹ SAR, Appendix C.

¹² Application at 4.

¹³ Bluebird Solar's Response to Siting Board Staff's First Request for Information (Response to Staff's First Request) (filed Apr. 8, 2022), Item 29.

¹⁴ Response to Staff's First Request, Item 29.

agricultural/residential, 23 percent agricultural, and 2 percent residential.¹⁵ Two residential neighborhoods are located within 2,000 feet of project facilities. There are no schools, public or private parks, hospitals, or nursing homes within 2,000 feet of the site.¹⁶

Wells reviewed and evaluated the SAR and stated that Bluebird Solar generally complied the statutory requirements for describing the facility and a site development plan as required by KRS 278.708.¹⁷

After reviewing the record of this proceeding, the Siting Board finds that Bluebird Solar has complied with the requirements for describing the facility and a state development plan as required by KRS 278.708. However, the Siting Board finds it necessary to impose certain mitigation measures related to the description of the facility and the proposed site development plan. Specifically, the Siting Board will require Bluebird Solar to keep the Siting Board apprised of changes throughout the development of the project and, as such, will order Bluebird Solar to provide the final plan before commencement of construction. The final site plan should indicate and highlight any change, including those to the design and boundaries of the project from the proposed site plan provided to the Siting Board during the pendency of this matter. Additionally, based on the findings and proposals of the Wells Report, the Siting Board further finds that additional mitigation measures are required. These mitigation measures are outlined in Appendix A to this Order, and in particular, mitigation measures 1 through 7.

¹⁵ SAR, Appendix A at 4.

¹⁶ Application page 4.

¹⁷ Wells Report at 11.

Compatibility with Scenic Surroundings

Bluebird Solar indicated that the Project is located in an agricultural and rural residential area of Harrison County.¹⁸ The primary impact on the view will be the solar panels. Landscaping plans will mitigate potential visual impacts to neighboring properties and the roadways.¹⁹ A glare study completed by AZTEC Engineering (AZTEC) that concluded some glare is possible without mitigation, but vegetative buffers will reduce glare substantially.²⁰ Bluebird Solar indicated that the CUP requires Bluebird Solar to modify the trackers if glare is present.²¹ Wells reviewed the SAR and found that the project will be compatible with scenic surroundings with the mitigation measures.²²

The Siting Board finds that while there will always be an impact on the scenery of neighboring properties, the impact of this project is minimal. The proposed vegetative buffer, along with other mitigation measures proposed by Bluebird Solar, will minimize the effects that the proposed facility will have on the scenic surroundings of the site. However, the Siting Board will require mitigation measures in addition to those proposed by Bluebird Solar and required by the CUP. Those are set forth in Appendix A to this Order, and in particular mitigation measures 8 through 12.

¹⁸ SAR at 4.

¹⁹ Application, Attachment B at 1.

²⁰ SAR, Appendix E at 48-49.

²¹ SAR at 4.

²² Wells Report at 31.

Impact on Property Values

Bluebird Solar submitted a property value impact report from Kirkland Appraisals (Kirkland Report), a certified real estate appraiser.²³ The Kirkland Report found that, based upon a comparative analysis, the solar facility will have no impact on the property values of abutting or adjacent residential or agricultural properties.²⁴ The report indicated that the solar facility would function in a harmonious manner with the nearby surroundings, which are mostly agricultural, and that operation of the solar facility would not generate the level of noise, odor, or traffic impacts to negatively impact the nearby surroundings as compared to a fossil fuel generating facility or other industrial facilities.²⁵

The Wells Report provided a review and analysis by Clark Toleman, MAI, on the Kirkland Report and its findings.²⁶ The review by Mr. Toleman analyzed the paired sales analysis prepared by the Kirkland Report to determine that there is a strong indicator that the proximity to a solar facility has a neutral impact on adjoining property values with proper setbacks and landscaped buffers are utilized.²⁷ The Wells Report concluded that the Kirkland Report is credible and representative of the market conditions that would exist if the project is constructed.²⁸

²³ SAR, Appendix A.

²⁴ SAR, Appendix A, at 2.

²⁵ SAR, Appendix A at 2 and 116.

²⁶ Wells Report, Attachment D.

²⁷ Wells Report, Attachment D at 6.

²⁸ Wells Report at 32.

Having reviewed the record, the Siting Board finds that there is sufficient evidence to conclude that the proposed Bluebird Solar facility will more than likely not have any significant adverse impact on nearby property values.

Anticipated Noise Level

The Siting Board evaluated the noise methodologies discussed in the case record and the findings of noise impact during construction and operation. The SAR contained two operation noise studies and a construction noise study by AZTEC.²⁹ During the construction phase, noise will be generated by various construction and earth-moving equipment including dozers, graders, loaders, pile drivers, and trucks.³⁰ Grading equipment, pile driving, and other construction activity typically produce sound levels ranging from 55 (pickup truck) to 95 (pile driver) dBA at 50 feet.³¹ Typically, construction work would occur across the site and only be in a single area for a short time.³²

AZTEC modeled worst case construction scenarios in the ambient noise monitoring zones closest to the noise receptors. In each scenario, AZTEC assumed that all construction equipment during the system installation phase would operate simultaneously in one zone with a sound level of 132 dBA.³³ AZTEC used a benchmark of 75 dBA to determine whether the construction noise would adversely affect public

²⁹ Application, SAR, Appendix D and Response to Staff's First Request, Item 41, and Bluebird Solar's Response to Siting Board Staff's Second Request for Information (Response to Staff's Second Request, Item 3 (filed May 6, 2022) and Response to Staff's Second Request, Item 2.

³⁰ Response to Staff's Second Request, Item 2, Attachment, Table 4 at 11.

³¹ Response to Staff's Second Request, Item 2, Attachment, Table 5 at 12.

³² Response to Staff's Second Request, Item 2, Attachment, Table 4 at 11.

³³ Response to Staff's Second Request, Item 2, Attachment, at 11.

health and welfare.³⁴ Based upon the worst case scenarios, AZTEC estimated that the worst-case-scenario average noise levels at each of the noise receptors will range from a low of 53 dBA to 72 dBA.³⁵ With ambient baseline noise around the project site and neighboring properties ranging from 45 to 69 dBA, AZTEC concluded that the noise generated could be noticeable to nearby sensitive noise receptors.³⁶

The AZTEC operational noise study cited to the Environmental Protection Agency's (EPA) recommended sound guideline of 55 dBA (equivalent to a continuous noise level of 48.6 dBA) as the maximum sound level that would not adversely affect public health and welfare for outdoor activity.³⁷ During the operational phase of the project, noise will emanate from the small panel-tracking motors, inverters and the substation. Noise may also be generated from midsize to large trucks and maintenance activity, such as mowing, within the project site. Ambient noise levels were monitored at five monitoring sites outside and around the project site boundary ranging from 45 dBA to 69 dBA.³⁸

AZTEC identified 26 noise receptors outside of and around the project site boundary ranging in distance from 95 feet to 3,000 feet.³⁹ The AZTEC operational study

³⁴ Response to Staff's Second Request, Item 2, Attachment, at 7. The 75 dBA benchmark is based upon AZTEC's review of a Federal Transit Authority noise impact manual, an Imperial County California noise requirement and Berkeley, California city noise mandate. The Benchmark does not consider the EPA 55 dBA guideline employed in AZTEC's operational noise study. At the Hearing, AZTEC stated that the use of the higher standard was commensurate with the higher noise levels associated with construction. Hearing Video Transcript (HVT) at 10:48:11-10:48:17.

³⁵ Response to Staff's Second Request, Item 2, Attachment, at 13.

³⁶ Response to Staff's Second Request, Item 2, Attachment, at 13.

³⁷ Response to Staff's Second Request, Item 2.

³⁸ Response to Staff's Second Request, Item 3, Attachment, Table 2 at 5.

³⁹ Response to Staff's Second Request, Item 2, Attachment, Table 3 at 7.

estimated the sound levels at the 26 noise receptor sites and created noise contours surrounding noise generators that were superimposed on project area plots with 30 dBA and 40 dBA sound level contours.⁴⁰ The highest estimated noise level at any of the 26 receptors is 26.9 dBA.⁴¹ The project area plots show that all nonparticipating noise receptors are outside the 30 dBA sound level contour. The AZTEC operational study concluded that noise created by vehicular and maintenance activity would be limited to daytime weekday business hours and would not contribute noticeably to existing noise levels. In addition, as can be seen from the project area plots anticipated operational noise levels are within EPA standards and no noticeable noise impact would occur.⁴²

The Wells Report reviewed, and summarized information contained in the application regarding construction and operational noise.⁴³ The Wells Report contained an analysis of pile driving noise suppression. The report evaluated multiple methods and products on the market to mitigate the noise during pile driving. These methods included noise shrouding and temporary noise walls/barriers/curtains if the noise receptor is within 500 feet of the installation.⁴⁴ In the Wells Report, shrouding is defined as a cylinder that covers the pile driver dampening the noise.⁴⁵ Other noise mitigation methods Wells evaluated were reducing the time required for pile driving, utilizing a less impactful pile driving schedule, use of a high frequency vibratory hammer, and the construction of

⁴⁰ Response to Staff's Second Request, Item 3, Attachment, Table 3 at 11 and Figure 5 at 13.

⁴¹ Response to Staff's Second Request, Item 3, Attachment, Table 3 at 11.

⁴² Response to Staff's Second Request, Item 3, Attachment at 15.

⁴³ Wells Report, Attachment B at 7.

⁴⁴ Wells Report, Attachment C at 1-2.

⁴⁵ See Wells Report, Attachment C, Photo 1.

temporary masonry or earthen barriers. Wells determined these alternate methods would not be cost effective or required residential cooperation.⁴⁶ While shrouding appeared to be the most viable option for noise mitigation during construction of solar projects, Wells ultimately recommended that ready-made sound-reducing barriers or blankets are the most viable option and that it should be coupled with interaction with the residents living in noise sensitive land uses.⁴⁷

In Bluebird Solar's reply to the Wells Report and at the Hearing, Bluebird Solar took issue with the meaning of shrouding and stated that shrouding is an extreme nonstandard noise mitigation measure that is neither practical nor consistent with previous Siting Board mitigation measures.⁴⁸ Bluebird Solar stated that shrouding, as defined in the Wells Report, is best suited for stationary drilling. Bluebird Solar stated that shrouding is not a viable option for a solar installation project which requires pile driving mobility.⁴⁹ Bluebird Solar committed to implementing a construction method that will mitigate the noise within 1,500 feet of a noise receptor when generated by pile driving activity.⁵⁰

The Siting Board finds that the shrouding noise reduction technique as explained in the Wells Report is not a practical option for noise mitigation. The Siting Board further

⁴⁶ Wells Report, Attachment C at 2-3.

⁴⁷ Wells Report, Attachment C at 2-3 and 4-7 for pictorial examples of shrouding and noise walls and barriers.

⁴⁸ Response Consultant's Report at 3-4 and HVT at 9:21:00-9:26:00.

⁴⁹ Response to Staff's Post Hearing Request, Item 2.

⁵⁰ Application at 6, Response to Consultant's Report at 3-4, and Response to Staff's Post Hearing Request, Item 2.

finds that noise from construction will be intermittent and temporary to nearby residents, but nevertheless significant. As discussed by both Bluebird Solar and Wells Engineering, the construction noise will be loudest during the pile driving portion of the construction process. The Siting Board finds that the operational noise from the solar inverters, substation transformers, and tracking motors should have little-to-no effect on residences in the area.

To ensure the impact of construction noise does not unduly affect nearby residences, the Siting Board will require Bluebird Solar to implement several additional mitigation measures designed to limit the impact of construction noise. These mitigation measures are outlined in Appendix A to this Order, and in particular, mitigation measures 13 through 15.

Impact on Roads, Railways, and Fugitive Dust

Construction is anticipated to take approximately 18 months.⁵¹ During that time, there will be intermittent and temporary impacts to traffic flow on roads near the Project. A majority of the construction traffic will be on two roads, Leesburg Pike (US 62) and Russell Cave Road (KY 353).⁵² Allen Pike will also provide direct access and will have some construction related traffic.⁵³ Silas Pike will not have access to the site but will be impacted by construction traffic.⁵⁴ Traffic or road degradation issues during construction is not expected.⁵⁵ There are no railways impacting the project.

⁵¹ Response to Staff's First Request, Item 28.

⁵² SAR, Appendix F at 1.

⁵³ SAR, Appendix F at 4.

⁵⁴ SAR, Appendix F at 4.

⁵⁵ SAR, Appendix F at 12.

The Siting Board finds that traffic and road degradation issues can be addressed with Bluebird Solar's mitigation measures, the additional mitigation measures proposed by Wells, and mitigation measures set forth in Appendix A to this Order, in particular, mitigation measures 17 through 24.

The Siting Board anticipates some fugitive dust from the construction phase. Bluebird Solar proposed measures to reduce fugitive dust during construction, including covering open-bodied trucks.⁵⁶ Due to an increase in dust from gravel roads, Bluebird Solar will use water to reduce dust.⁵⁷ The Siting Board requires additional mitigation to reduce this harmful effect on the area, as outlined in Appendix A, mitigation measure 25.

II. KRS 278.710(1) – Criteria

Economic Impact on Affected Region and the State

According to Bluebird Solar's economic impact report, the proposed solar facility will invest over \$110 million in Harrison County including land acquisition, site preparation, solar panel and electrical equipment installation, landscaping, and security fencing.⁵⁸ The project is expected to generate significant positive economic and fiscal impacts to Harrison County. Such impacts include the creation of hundreds of construction jobs, expansion of the local tax base, and the benefits of having a long-term employer and corporate citizen in the region. The project will be conducted in two phases: a construction phase and an operation phase.⁵⁹

⁵⁶ SAR at 6.

⁵⁷ SAR at 6.

⁵⁸ Application, Attachment J at 1-2.

⁵⁹ Application, Attachment J at 1.

The IMPLAN model used for the economic impact analysis focused on Harrison County as well as looking at six other surrounding regional counties including Bourbon, Fayette, Nicholas, Pendleton, Robertson, and Scott.⁶⁰ During project construction, Bluebird Solar estimated that approximately 213 temporary full-time jobs will be created in Harrison County alone with a direct payroll of approximately \$15.10 million.⁶¹ This equates to an average wage of \$70,920 per construction job, as compared to the 2019 average annual pay for all jobs in Harrison County of \$41,573.⁶² The indirect and induced economic impacts are estimated to contribute another 69 jobs with an additional \$3.12 million in payroll. The total construction phase economic impact is estimated to be 282 total full-time equivalent jobs in Harrison County with a new payroll of \$18.22 million.⁶³

Looking at the seven-county model, 55 additional regional jobs are predicted with a total payroll of \$3.2 million resulting from the construction phase. Bluebird Solar estimated the creation of 336 total full-time equivalent jobs with a payroll of approximately \$21.41 million.⁶⁴ The vast majority of jobs will be filled by craft workers and contractors such as fencers, electricians, panel installers, equipment operators, and construction managers.⁶⁵

⁶⁰ Application, Attachment J at 3-4.

⁶¹ Application, Attachment J at 2-3.

⁶² Application, Attachment J at 2-3.

⁶³ Application, Attachment J at 1 and 3. See also Response to Staff's First Request for Information, Item 3.

⁶⁴ Application, Attachment J at 5.

⁶⁵ Response to Staff's First Request, Item 2, Attachment.

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 modestly support 2-3 jobs.⁶⁶

Bluebird Solar and Harrison County have negotiated an Industrial Revenue Bond (IRB) and a Payment in Lieu of Taxes (PILOT) Agreement. With IRB and PILOT agreements in place, Bluebird Solar estimates that it will pay over \$1.5 million in combined new property taxes and PILOT payments over the 30-year life of the project.⁶⁷ These payments, which average about \$50,000 annually, can be compared to the \$16,000 per year currently being paid by landowners of the site (almost of all of which is from agricultural use).⁶⁸ In addition to property taxes, payroll and net profits tax revenues will be collected. During the construction phase, an estimated \$273,000 in one-time occupational tax revenues will be collected for Harrison County.⁶⁹ In addition, construction phase income is estimated to yield state income and sales tax revenue of \$887,000 and \$728,000, respectively.⁷⁰ During the operational phase, estimated annual occupational tax revenue of \$2,300 will be collected for Harrison County.⁷¹ Net profit taxes could not be predicted by the initial report, but they could be significant for the county over the project life if it earns a reasonable profit.⁷²

⁶⁶ Application, Attachment J at 3.

⁶⁷ Application, Attachment J at 6.

⁶⁸ Application, Attachment J at 6.

⁶⁹ Application, Attachment J at 1 and 6.

⁷⁰ Response to Staff's Second Request, Item 12.

⁷¹ Response to Staff's First Request, Item 5.

⁷² Application, Attachment J at 6

Wells Engineering conducted a review of Bluebird Solar's Economic Impact Study. Based upon its review and analysis, Wells Engineering concluded that the project will provide significant positive economic effects to the region and Commonwealth during the construction phase. The operational phase will provide much smaller positive effects.⁷³

Having reviewed the record, the Siting Board finds that the Bluebird Solar facility will have a positive economic impact on the region.

Existence of Other Generating Facilities

There is no other electric generating facility on the Project site. Bluebird Solar noted it is rare for utility-scale solar projects to be located with existing electricity generating infrastructure.⁷⁴ Bluebird Solar did choose a project location near existing electricity transmission infrastructure and the Project will connect with an existing transmission line owned by EKPC.⁷⁵

Local Planning and Zoning Requirements

Article 23 of the Harrison County Planning Commission Ordinances address solar facilities. The ordinance includes the setback requirements from nonparticipating properties and roadways. A 100-foot setback is required from the front of the property and 50 feet from the side and rear of the property when located in an agricultural zoning district.⁷⁶ The Harrison County Planning Commission approved of the site plan on

⁷³ Wells Report, Attachment E Corrected Filing at 10.

⁷⁴ Application at 14.

⁷⁵ Application at 14.

⁷⁶ Application at 9.

May 24, 2021.⁷⁷ The Siting Board finds that the Project appears to comply with the Harrison County Barry Joint Planning Commission Ordinance.

Impact on Transmission System

The Project is located within the territory of PJM Interconnection LLC (PJM). PJM is managing the interconnection of the project in coordination with EKPC.⁷⁸ Bluebird Solar made two interconnection applications to interconnect the project with the Jacksonville-Renaker 138kV transmission line owned by EKPC. PJM completed a Feasibility Study, a System Study, and a Facilities Study in both of the applications made by Bluebird Solar.⁷⁹ After the studies were completed, both applications were combined into one Interconnection Agreement.⁸⁰ PJM confirmed there are no utilities outside PJM that will be affected by the Project.⁸¹ Bluebird Solar will be required to pay for costs identified to interconnect and deliver electricity into the PJM and EKPC transmission system.⁸²

Based upon the case record, the Siting Board finds that Bluebird Solar has satisfied the requirements of KRS 278.710(f) and that the additional load imposed on the electricity transmission system, created by the generation of electricity at the Bluebird Solar facility, will not adversely affect the reliability of service for retail customers of electric utilities regulated by the Kentucky Public Service Commission. This finding is

⁷⁷ Application at 9.

⁷⁸ Application at 16.

⁷⁹ Application at 16. See Application, Attachment H and Attachment I for the full transmission studies produced by PJM.

⁸⁰ Application at 16.

⁸¹ Application at 16.

⁸² Application at 16.

based upon Bluebird Solar's commitment to the interconnection process and protocols consistent with the requirements of KRS 278.212.

Compliance with Setback Requirements

The Project is subject to local setback requirements. Therefore, Bluebird Solar has not requested a deviation, pursuant to KRS 278.704, from the statutory setback requirements for the Project. Bluebird Solar has committed to the setback requirements required by the Harrison County Planning Commission.⁸³ Nevertheless, the Siting Board finds that Bluebird Solar shall not place solar panels or string inverters if used, closer than 150 feet from a residence, church, or school, 25 feet from nonparticipating adjoining parcels, and 50 feet from adjacent roadways. Bluebird Solar shall not place a central inverter, and if used, energy storage systems, closer than 450 feet from a residence, church, or school. Exceptions to these setback requirements for participating landowners are include in Appendix A.

History of Environmental Compliance

No information appears in the record of any environmental violations. Bluebird Solar stated that neither it, nor anyone with an ownership interest in it, has violated any environmental laws, rules, or administrative regulations that resulted in a criminal confiscation, or a fine of greater than \$5,000. Further it is not the subject of any pending judicial or administrative actions.⁸⁴

The Siting Board shall require approval of a transfer ownership of the project to another developer. The approval of the construction certificate is conditioned upon full

⁸³ Application at 9 and 11.

⁸⁴ Application at 19.

compliance with all mitigation measures contained in this Order, some of which continue into the operation of the project. If the Siting Board did not require approval of a potential transfer of ownership, the construction certificate could be transferred to a company without the requisite expertise to comply with the mitigation measures. This would create a situation where a merchant solar generating facility is being constructed and operated outside of the statutory requirements of the Siting Board. This will be set forth more fully in Appendix A to this Order in mitigation measure 26.

Decommissioning

Bluebird Solar has not finalized a decommissioning plan.⁸⁵ The applicable property leases contain covenants to the property owners regarding decommissioning.⁸⁶ Bluebird Solar indicated it is the typical practice of the company to only decommission a project to a depth of three feet.⁸⁷

The Siting Board finds that Bluebird Solar must return the land to its original use at the end of the Project's life to the extent possible. This will require the removal of all components above and below ground. Removal of all underground components and regrading or recompacting the soil for agricultural use will mitigate any damage to the land. The Siting Board will also require additional mitigation measures related to decommissioning, which are outlined in Appendix A to this Order, and in particular, mitigation measures 27 through 31.

⁸⁵ HVT at 09:17:42.

⁸⁶ See Bluebird Solar's Response to Siting Board Staff's First Request for Information, Item 14.

⁸⁷ HVT at 09:18:22.

Conclusion

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that Bluebird 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 to this Order as Appendix B.

IT IS THEREFORE ORDERED that:

1. Bluebird Solar's application for a Construction Certificate to construct an approximately 100 MW merchant solar electric generating facility in Harrison County, Kentucky is conditionally granted subject to full compliance with the mitigation measures and conditions prescribed in Appendix A.
2. Bluebird Solar shall fully comply with the mitigation measures and conditions prescribed in Appendix A.
3. In the event mitigation measures within the body of this Order conflict with those prescribed in Appendix A, 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

Vice Chairman, Public Service Commission


Commissioner, Public Service Commission



Secretary, Energy and Environment Cabinet,
or her designee


Secretary, Cabinet for Economic Development,
or his designee


Greg Coulson, ad hoc member

*by KAC
w/ permission*

ATTEST:


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

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AUG 03 2022
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KENTUCKY PUBLIC
SERVICE COMMISSION

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2021-00141 DATED AUG 03 2022

MITIGATION MEASURES AND CONDITIONS IMPOSED

The following mitigation measures and conditions are hereby imposed on Bluebird Solar LLC (Bluebird 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. Prior to construction, Bluebird Solar shall provide a finalized Emergency Response Plan to the local fire district, first responders, and any County Emergency Management Agency. Bluebird Solar will provide site specific training for local emergency responders at their request. Access for fire and emergency units must be set up after consultation with local authorities.

5. Bluebird 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.

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

7. The security fence must be installed prior to activation of any electrical installation work in accordance with NESC standards. The substation shall have its own separate security fence and locked access installed in accordance with NESC standards.

8. 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. Bluebird Solar will not remove any existing vegetation except to the extent it must remove such vegetation for the construction and operation of Project components.

9. Bluebird 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 Bluebird 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, Bluebird 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.

10. Bluebird Solar shall cultivate at least two acres of native, pollinator-friendly species onsite.

11. Bluebird 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, Bluebird Solar shall replace it as appropriate.

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

13. Bluebird Solar shall limit construction activities to the daylight hours between 7:00 a.m. to 9:00 p.m. Monday through Saturday. Construction shall not be conducted on Sundays unless it is necessary to make up for delays or to meet deadlines. Non-noise causing and non-construction activities can take place on the site prior to 7:00 a.m.

14. If the pile driving activity occurs within 1,500 feet of a noise-sensitive receptor, Bluebird 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). Bluebird 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.

15. Bluebird 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 32 of this Appendix, at least one month prior to the start of construction.

16. Bluebird 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. The Siting Board approves Bluebird Solar's proposed setback from residences of 150 feet from any panel or string inverter. The Siting Board also approves a distance of 300 feet between any solar panel or string inverter and any residential neighborhood and 100 feet from any exterior property line. Nevertheless, Bluebird Solar shall not place solar panels or string inverters, if used, closer than 150 feet from a residence, church, or school; 25 feet from non-participating adjoining parcels; or 50 feet from adjacent roadways. Bluebird Solar shall not place a central inverter, and if used, energy storage systems, closer than 450 feet from any adjacent residences, church, or school. These further setbacks shall not be required for residences owned by landowners involved in the project that explicitly agree to lesser setbacks and have done so in writing. All agreements by participating landowners to lesser setbacks must include language advising the participating landowners of the setbacks otherwise required herein. All agreements by participating landowners to lesser setbacks must be filed with the Siting Board prior to commencement of the Project.

17. Bluebird 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.

18. Bluebird Solar shall comply with all laws and regulations regarding the use of roadways.

19. Bluebird 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.

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

21. Bluebird Solar shall consult with the Harrison County Road Department (HCRD) regarding truck and other construction traffic and obtain any necessary permits from the HCRD.

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

23. Bluebird Solar shall comply with any road use agreement executed with HCRD. Such an agreement might include special considerations for overweight loads, routes utilized by heavy trucks, road weight limits, and bridge weight limits.

24. Bluebird 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.

25. Bluebird 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 Bluebird Solar's compliance with 401 KAR 63:010.

26. 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, Bluebird Solar or its successors or assigns shall request explicit approval from the Siting Board with notice of the request provided to the Harrison County Fiscal Court. In any application requesting such abandonment, sale, or change of control, Bluebird Solar shall certify its compliance with KRS 278.710(1)(i).

27. As applicable to individual lease agreements, Bluebird 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.

28. Bluebird Solar shall file a complete and explicit decommissioning plan with the Siting Board. This plan shall commit Bluebird 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.

29. Bluebird Solar shall file a bond with the Harrison County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan naming

Harrison County as a third-party obligee (or secondary, in addition to individual landowners) beneficiary, in addition to the lessors of the subject property insofar as the leases contain a decommissioning bonding requirement so that Harrison County will have the authority to draw upon the bond to effectuate the decommissioning plan. For land with no bonding requirement otherwise, Harrison County shall be the primary beneficiary of the decommissioning bond for that portion of the Project. The bond shall be filed with the Harrison 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 Harrison County Fiscal Court, through the Harrison County Treasurer, can be evidenced by a letter from the Harrison County Judge-Executive, the Harrison County Fiscal Court, or the Harrison 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 Bluebird Solar's expense to determine and update the cost of removal amount. 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 Harrison 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.

30. Bluebird 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. Bluebird Solar shall commit to removing the debris and replaced facility components from the Project site and from Harrison County upon replacement. If the replaced components

are properly disposed of at a permitted facility, they do not have to be physically removed from Harrison County. However, if the replaced facility components remain in the County, Bluebird Solar must inform the Siting Board of the location where the components are being disposed.

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

32. Bluebird 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. Bluebird Solar shall also submit annually a status report associated with its Complaint Resolution Program, providing, among other things, the individual complaints, how Bluebird Solar addressed those complaints, and the ultimate resolution of those complaints identifying whether the resolution was to the complainant's satisfaction.

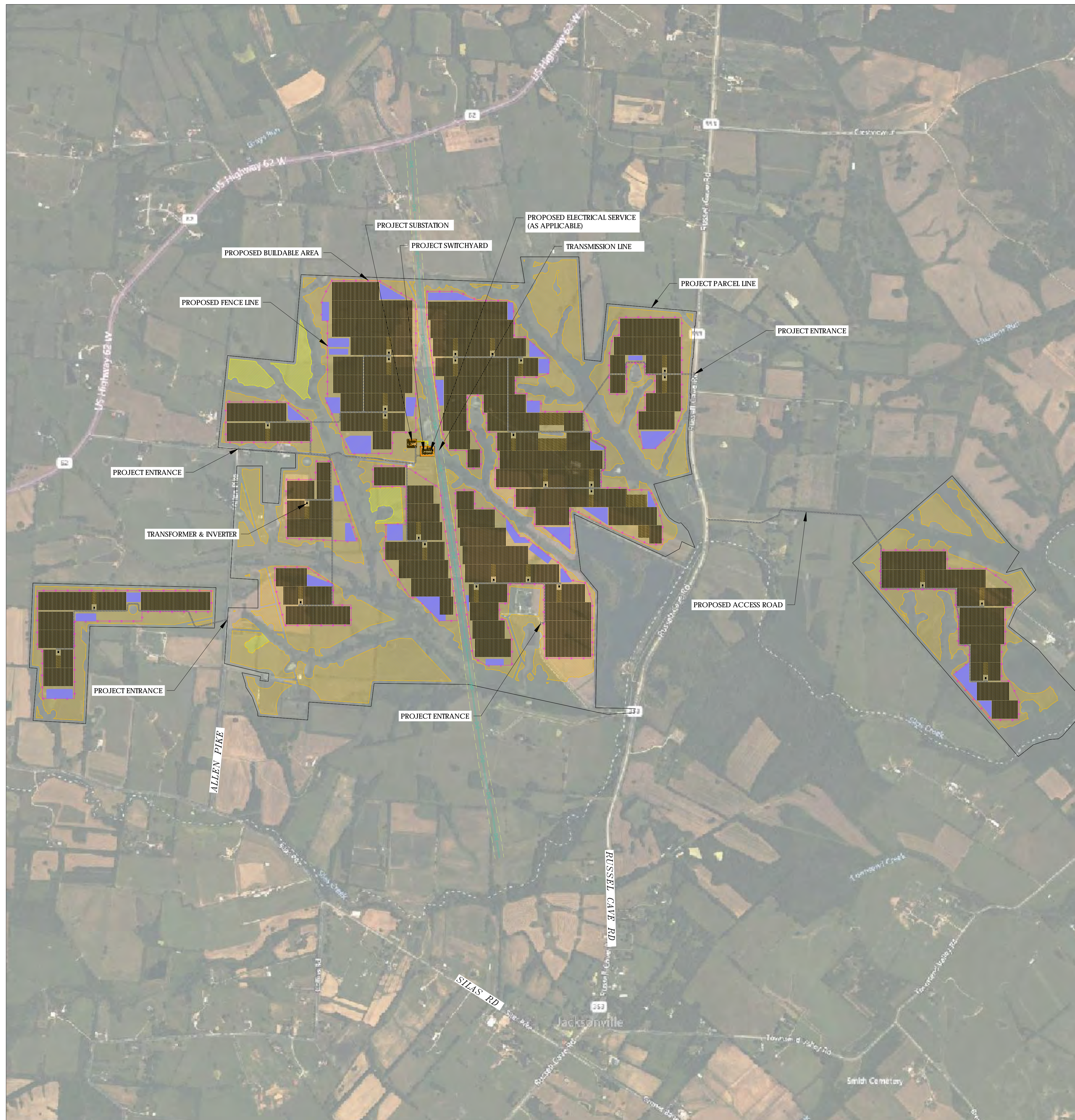
33. Bluebird Solar shall provide the Harrison County Fiscal Court contact information for individuals within the company that can be contacted with concerns. This shall include contact information for the general public to reach individuals that can address their concerns. Bluebird Solar shall update this contact information yearly, or within 30 days of any change in contact information.

34. Within 30 days of entry, Bluebird 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. 2021-00141 DATED AUG 03 2022

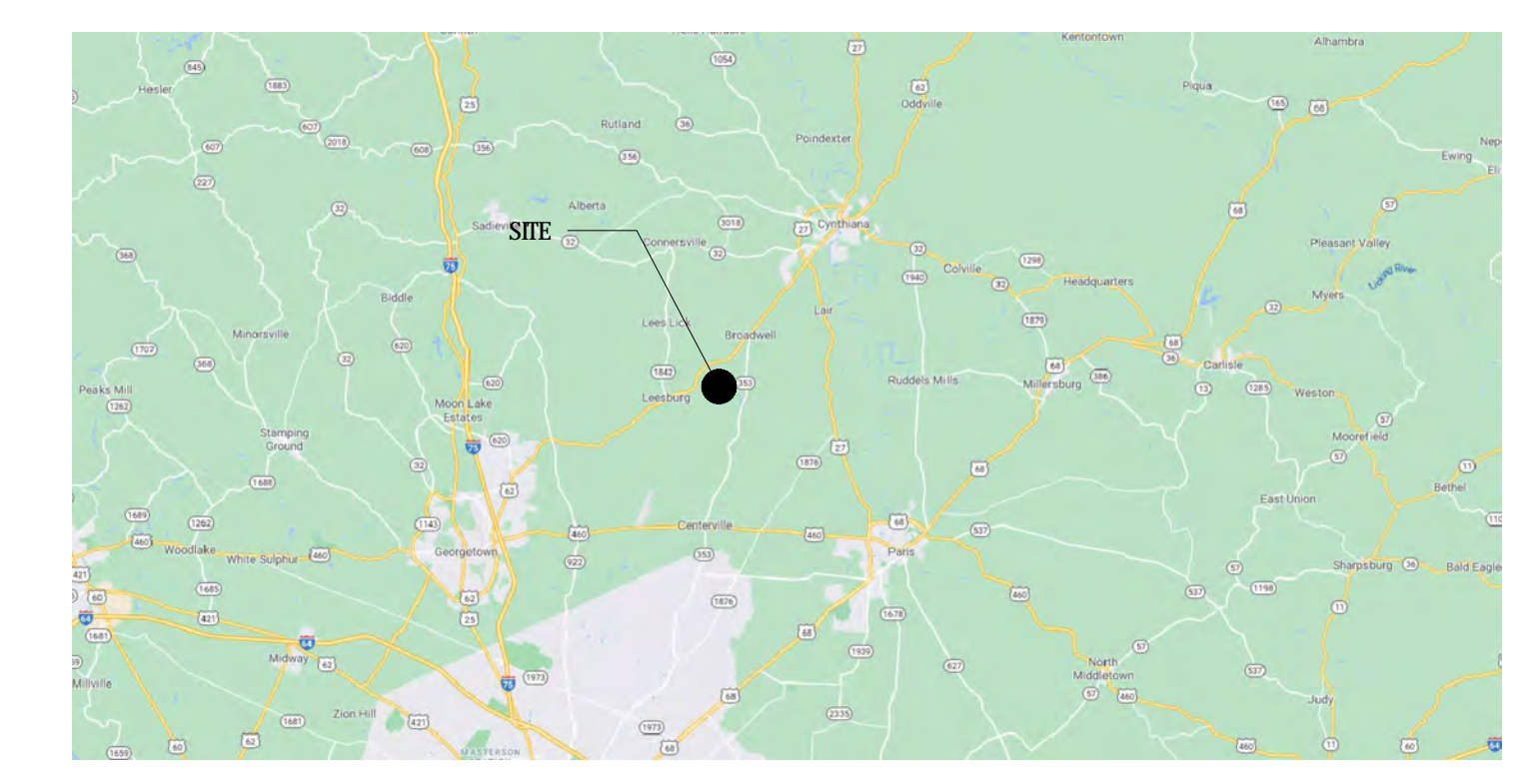
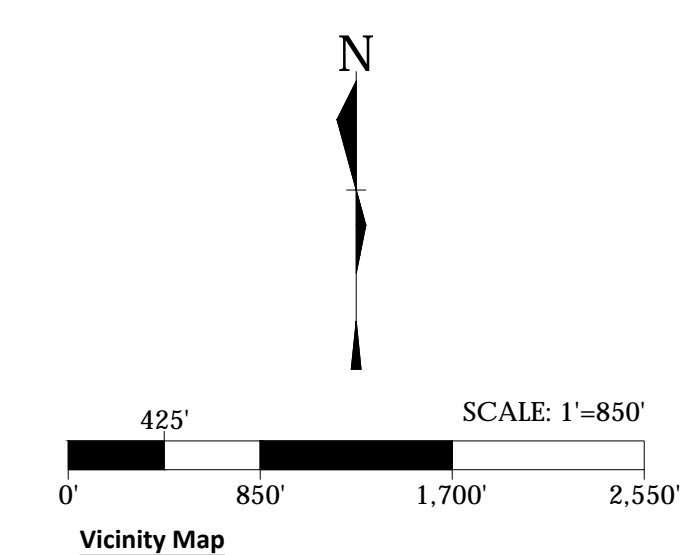
ONE PAGE TO FOLLOW



LEGEND

- PROPERTY BOUNDARY
- - - PERIMETER FENCE
- - - PROPOSED ACCESS ROAD
- - - PROPOSED BUILDABLE AREA
- PROPOSED ARRAY
- PROPOSED INVERTER/BATTERY
- DETENTION BASIN
- OVERHEAD ELECTRIC TRANSMISSION LINE

PROJECT SITE DESCRIPTION
 1,348.57: PROPERTY ACRES
 610.40: FENCED ACRES
 LATITUDE: 38.299894°
 LONGITUDE: -84.383489°
 ELEVATION: 886 FT



**BayWa r.e.
Solar Projects LLC**

18575 Jamboree Road, Suite 850
 Irvine, CA 92612
 Phone: 949.771.2976 | Fax: 949.398.3914
 www.baywa-re.us

PROJECT DIRECTOR

PROJECT ENGINEER
 ANDREA PARRA
 (52) 1-81-2071-3210

NO.	ISSUE	DATE
1.	PRELIMINARY	11.22.21

PROJECT NUMBER
 DRAWN BY: IR
 REVIEWED BY: DC
 APPROVED BY:

BLUEBIRD
 100 MW-AC
 HARRISON COUNTY,
 KY 41031

**SITE DEVELOPMENT
 PLAN**
 DRAWING
 NUMBER: **PV-D1.01**
 SHEET SIZE: ARCH D - 24" x 36"

*Gregory Coulson
Resident Representative
113 South Walnut Street
Cynthiana, KENTUCKY 41031

*James W Gardner
Sturgill, Turner, Barker & Moloney, PLLC
333 West Vine Street
Suite 1400
Lexington, KENTUCKY 40507

*Daryl Northcutt
Chairman- Harrison County Planning Commission
111S Main St, Ste 202
Cynthiana, KENTUCKY 41031

*M. Todd Osterloh
Sturgill, Turner, Barker & Moloney, PLLC
333 West Vine Street
Suite 1400
Lexington, KENTUCKY 40507