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

In the Matter of:

In the Matter of the Application of Lost City Renewables LLC for a Certificate of Construction for an Approximately 250 Megawatt Merchant Electric Solar Generating Facility in Muhlenberg County, Kentucky Pursuant to KRS 278.700 and 807 KAR 5:110	)))))	**Case No. 2024-00406**

LOST CITY RENEWABLES LLC'S RESPONSE BRIEF

Lost City Renewables LLC ("Lost City"), by counsel, and pursuant to the Kentucky State Board on Electric Generation and Transmission Siting ("Siting Board") order dated June 20, 2025, submits this Reply to the Intervenors' post-hearing brief.

The record in this matter is clear: Lost City's application to construct a 250-megawatt merchant electric solar generating facility complies with KRS 278.710, and all evidence in the record supports the Siting Board's approval of the project. Despite neighboring landowners' intervention in the matter, the Intervenors did not present any evidence to counter the voluminous record Lost City produced within this matter. Further, the Intervenors have ignored Elliot Engineering's Report, which concluded Lost City's application complied with all statutory requirements. The Intervenors did not submit any requests for information to Lost City during the pendency of this matter, did not present any witnesses for testimony at the evidentiary hearing, and only produced three photographs of a road on cross-examination.

Contrary to any claim the Intervenors raise in post-hearing briefing, Lost City provided all statutorily required components for approval of its application per KRS 278.710. Lost City also exceeded the statutory minimums by providing numerous additional reports relating to this project

for the Siting Board to review including: Wildlife Concerns Analysis, Stream and Wetland Delineation, Geotechnical Desktop Study, Stormwater Pollution Prevention Plan, Fire Prevention Plan, and Bat Study, Eagle-Raptor Survey, Cultural Resource Desktop Review and Site Reconnaissance, Archaeological Desktop Review and Site Reconnaissance, and Federal and State Listed Threatened and Endangered Species Habitat Assessment. Lost City has voluntarily committed to 49 mitigation measures to address any potential concerns relating to the project.

The Siting Board engaged Elliot Engineering to review Lost City's application. Elliot Engineering evaluated all submitted materials, reports, proposed mitigation measures, and responses to information and visited the project site in its review of the application. It also retained subject matter experts on property values, economic impact, and environmental issues. Elliot Engineering and its subcontractors concluded that Lost City's application should be approved. Accordingly, the Siting Board should approve the Lost City project. The record has ample information detailing the project's compliance with all statutory criteria, as Elliot Engineering confirmed in its Consultant's Report, and the site is well suited for the project.

Lost City will now address some of the assertions the Intervenors raised in their post-hearing submission that are inconsistent with the underlying record in this matter.

1. Statutory Setback Requirements

A. Solar MEGFs are not bound by the 1,000-foot setback to property boundaries in KRS 278.704(2).

The Intervenors wrongly assert that a merchant electric generating facility ("MEGF") like Lost City's facility is subject to a 1,000-foot statutory setback. Contrary to the Intervenors' argument, there is no 1,000-foot statutory setback for Lost City's proposed solar generating facility.

Two statutes within the KRS subchapter related to Electric Generation and Transmission Siting (KRS 278.700-278.718) identify the default setbacks for MEGFs.[1] KRS 278.704(2) identifies setbacks associated with construction certificates approved by the Siting Board and site construction certificates approved by the Public Service Commission. KRS 278.710(1) identifies the criteria on which the Siting Board must consider when rendering its decision, including setbacks that are discussed in paragraph (g) of that subsection.

Because the Siting Board is now at the stage of considering whether to approve a construction certificate to Lost City, it is appropriate to begin with a review of KRS 278.710(1)(g), which the Intervenors conveniently ignored. This paragraph states as follows:

> "[T]he board shall, by majority vote, grant or deny a construction certificate, either in whole or in part, based upon the following criteria:
>
> . . .
>
> (g) Except where the facility is subject to a statewide setback established by a planning and zoning commission as provided in KRS 278.704(3) and except for a facility proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source, whether the exhaust stack of the proposed merchant electric generating facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility, unless a different setback has been requested and approved under KRS 278.704(4). If a planning and zoning commission has established setback requirements that differ from those under KRS 278.704(2), the Lost City shall provide evidence of compliance. If the facility is proposed to be located on site of a former coal processing plant and the facility will use on-site waste coal as a fuel source, the Lost City shall provide evidence of compliance with the setback requirements provided in KRS 278.704(5).

[1] A third statute—KRS 278.706—identifies minimum filing requirements for the Application for a construction certificate. This includes certain statements regarding setbacks, which Lost City included within in Application. *See* Application, Section 5. A fourth statute—KRS 278.708—identifies the minimum requirements of the Site Assessment Report, while cross-referencing the appliable setback requirements in KRS 278.704.

Because there is no setback established by a planning and zoning commission for the proposed location and because the site is not proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source, the first clause and the last two sentences of KRS 278.710(1)(g) are not applicable to Lost City. Accordingly in this case, the Siting Board is left to consider the following:

> whether the exhaust stack of the proposed merchant electric generating facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility, unless a different setback has been requested and approved under KRS 278.704(4).

This relevant text can be broken into three elements.

First, the Siting Board should consider "whether the exhaust stack of the proposed merchant electric generating facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner." Because Lost City's proposed facility does not have an exhaust stack or wind turbine, this element is not appliable to this matter.[2]

Second, the Siting Board should consider "whether . . . all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility." As discussed in documents filed in this case[3] and further discussed below, there are no residential neighborhoods, schools, hospitals, or nursing home facilities within 2,000 feet of any of the proposed facilities to be used for electric generation. Therefore, this element is not applicable to this matter.

Third, if there are exhaust stacks or wind turbines within 1,000 feet of a property boundary or residential neighborhoods, schools, hospitals, or nursing home facilities within 2,000 feet of

[2] *See Unbridled Solar, LLC*, Case No. 2020-00242 at 33-34 (June 4, 2021).
[3] Response to KSB RFI 2-19; Lost City Post-Hearing Brief at 17-19 (June 27, 2025); Application at 5.

generating facilities, the Siting Board should consider whether a deviation is warranted pursuant to KRS 278.704(4). Because the first two elements do not apply, this third element is also inapplicable to this matter.[4]

Simply put, KRS 278.710(1)(g) provides the statutory default setbacks that the Siting Board must consider in determining whether to grant a construction certificate. This statutory paragraph (as well as the entire statute scheme) does not indicate that the Siting Board should consider whether facilities used for solar generation shall be 1,000 feet from a property boundary. Accordingly, the Intervenors' argument must be rejected.

The Intervenors attempt to argue that KRS 278.704(2) should be interpreted in a way that requires an MEGF to have a 1,000-foot setback to property boundaries. This interpretation, however, is inconsistent with the plain language of the statute, which states:

> Except as provided in subsections (3), (4), and (5) of this section, no construction certificate shall be issued to construct a merchant electric generating facility unless the exhaust stack of the proposed facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility. For purposes of applications for site compatibility certificates pursuant to KRS 278.216, only the exhaust stack of the proposed facility to be actually used for coal or gas-fired generation or, beginning with applications for site compatibility certificates filed on or after January 1, 2015, the proposed structure or facility to be actually used for solar or wind generation shall be required to be at least one thousand (1,000) feet from the property boundary of any adjoining property owner and two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility

This statutory subsection can be broken into two separate standards, which are distinguished by the two sentences of the subsection.

[4] As mentioned in its Brief and below, Lost City respectfully requests a deviation from the statutory setbacks if the Siting Board finds that there is a residential neighborhood withing 2,000 feet of its proposed generating facilities.

The first sentence pertains specifically to construction certificates involving MEGFs, such as Lost City. It requires (a) MEGF exhaust stacks and wind turbines be at least 1,000 feet from the property boundary of any adjoining property owner and (b) all proposed structures or facilities used for generation of electricity be 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility—unless a deviation is granted. This is the relevant standard for compliance by Lost City.

The second sentence relates to site compatibility certificates governed by KRS 278.216, which requires a utility to obtain a site compatibility certificate from the Public Service Commission. Lost City is not a "utility" as defined by KRS 278.010(1) as Lost City does not and will not sell electricity "to the public." In addition, the Public Service Commission has statutory authority only to regulate utilities, pursuant to KRS 278.040. In contrast, KRS 278.700-278.718 authorizes the Siting Board—not the Public Service Commission—to approve construction certificates for MEGFs. Because Lost City is not a utility requesting a site compatibility certificate, the setbacks in the second sentence of KRS 278.704(2) are inapplicable.

Numerous other factors further confirm that the Intervenors' interpretation of KRS 278.704(2) is misguided. First, as discussed above, KRS 278.710(1)(g) requires the Siting Board to consider the setbacks identified in the first sentence of KRS 278.704(2) when determining whether to approve a construction certificate. KRS 278.710(1)(g) does not isolate setbacks for solar generation facilities, in comparison to the second sentence of KRS 278.704(2).

Second, the minimum filing requirements for an application for construction certificate identified in KRS 278.706(2)(e) only require statements regarding compliance with the setbacks set forth in the first sentence of KRS 278.704(2). It does not isolate solar generating facilities, as the second sentence of KRS 278.704(2) does.

Third, the legislative history of KRS 278.704(2) reveals that the first sentence pertaining to MEGFs was initially adopted in 2002 when the statutory subchapter was established.[5] The second sentence that relates only to utilities was not included until the 2014 General Assembly.[6] This temporal distinction demonstrates that the two sentences are different in scope.

In addition, the statute requiring utilities to obtain site compatibility certificates—KRS 278.216—was also first established in 2002.[7] When first adopted in 2002, KRS 278.216 specifically required a utility seeking a site compatibility certificate to submit a site assessment in compliance with KRS 278.708, which in turn, required compliance with appliable setbacks set forth in KRS 278.704(2). The text of the 2002 Act for KRS 278.704(2), however, only referred to an MEGF—not a utility. Thus, the General Assembly clarified this issue in 2014 by adopting the second sentence of KRS 278.704(2) so that there was specific correlation to KRS 278.216 and KRS 278.704(2) as it related to utilities. This 2014 clarification supports the distinction in applicability of the first and second sentences of KRS 278.704(2).

Fourth, Kentucky's statutory scheme has always distinguished regulations and standards between utilities and MEGFs as it relates to setbacks. KRS 100.324 provides utilities with an exemption from local zoning regulations.[8] In contrast, not only are MEGFs subject to local zoning regulations, but KRS 278.704(3) provides primacy of local zoning regulations over the statutory defaults.[9] The Public Service Commission has likewise confirmed this distinction, stating:

> the siting board[']s authority is explicitly limited to granting deviations from the statutory setback requirements and does not permit the siting board to grant deviations from the local planning and zoning requirements. The distinction

[5] 2002 Kentucky Laws Ch. 365 (S.B. 257), Section 3.
[6] 2014 Kentucky Laws Ch. 88 (HB 291), Section 2.
[7] 2002 Kentucky Laws Ch. 365 (S.B. 257), Section 13.
[8] *See Oldham County Planning and Zoning Com'n v. Courier Communications Corp.*, 722 S.W.2d 904, 906 (Ky. App. 1987).
[9] KRS 278.718 was amended in 2023 to further confirm primacy of local governmental regulations.

> between the deviation statutes indicates that the legislature intended to give the Commission broader authority.[10]

Thus, the Intervenors' argument that it is arbitrary to distinguish between utilities and MEGFs is unfounded.[11]

Fifth, the Public Service Commission has confirmed that the second sentence of KRS 278.704(2) specifically applies to *utilities* seeking to obtain a site compatibility certificate, stating:

> Notably, the reference to site compatibility certificates required pursuant to KRS 278.216, which are only required for utilities as defined by KRS 278.010, indicates that the legislature intended for KRS 278.704(2) to establish explicit setback requirements for utilities that must be met in order to obtain a site compatibility certificate.[12]

Sixth, the Siting Board has implicitly confirmed that the 1,000-foot setback identified in the second sentence in KRS 278.704(2) does not apply to solar MEGFs. Over the last five years, the Siting Board has approved approximately three dozen construction certificates to solar MEGFs, and it does not appear that the Siting Board has required an MEGF to comply with the requirements of the second sentence in KRS 278.704(2). In at least one case, the Siting Board was more explicit about why the 1,000-foot setback in KRS 278.704 does not apply, stating:

> The project site will not have any existing electricity generating facilities onsite and will not include any exhaust stacks or wind turbines. Therefore, the setback requirement of 1,000 feet from the property line of adjacent properties does not apply to the Webster County portion of the project.[13]

The Siting Board's own findings further confirm that the 1,000-foot setback identified in the second sentence in KRS 278.704(2) does not apply to solar MEGFs.

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[10] *Kentucky Utils. Co.*, Case No. 2023-00361 at 32 (Ky. PSC July 12, 2024).
[11] Even beyond the distinctions on local zoning regulations, utilities have a very different regulatory oversight from the Public Service Commission as compared to MEGFs and the Siting Board.
[12] *Id.* at 24.
[13] *Unbridled Solar, LLC*, Case No. 2020-00242 at 33-34 (KSB June 4, 2021).

In sum, a plain reading of the statutory requirements for MEGFs demonstrates that there is not a statutory requirement for solar generating facilities to be setback 1,000 feet from property boundaries. Numerous other factors confirm this interpretation. Accordingly, the Intervenors' argument must be rejected.

B. Residential neighborhoods

No residential neighborhoods are located within 2,000 feet of the Lost City project. The project will sit on a 1,413-acre parcel of property and will be constructed on roughly 800 acres of that parcel. [14] The majority of the parcels flanking project's parcel are comprised of open fields or wooded areas, and scattered parcels contain residential structures, barns, sheds, and other agricultural structures. In fact, the breakdown of the adjoining properties reveals that 67.22 acres of agricultural land adjoin the parcel while only 21.47 acres of adjoining parcels are used for residential purposes and 11.32 acres of adjoining parcels is for mixed residential and agricultural use.[15] Parcels containing residential structures around the project parcel are unorganized lots in a rural area – they are not an organized, planned design like a neighborhood.

KRS 278.700(6) defines a residential neighborhood as an area of five or more acres containing at least one residential structure per acre. Intervenors now attempt to persuade the Siting Board that this statutory density requirement may be evaluated using irregular boundaries around residential structures with no regard for the parcels on which the residences are located. The Intervenors' approach to defining a residential neighborhood is easily manipulable. The Intervenors try to draw an irregular-shaped, abstract boundary around residential structures in the area.[16] Yet, this configuration of residences to determine whether a neighborhood exists requires

[14] Site Assessment Report at 2.
[15] *Id*.
[16] Brief of Intervenors at 8 (June 27, 2025); Jay McElwain Public Comment – Item 8 (April 2, 2025).

the Siting Board to construct a "residential neighborhood" boundary that includes a sharp right turn around Free Lane with a perimeter of 8,367 feet, roughly a mile and a half, that excludes the entirety of the lots on which the homes are situated.[17]

The Siting Board should not interpret KRS 278.700(6) to contain density requirement comprised of any possible amalgamation of residential structures based on creative boundary drawing. Reliance on an area of five acres with no consistent standard for measurement of parcels creates disparate, unreliable results. If a party can draw oblong, polygon configurations around residential structures, that party may create any number of five-acre areas to constitute a neighborhood that will never again be replicated by other parties or the Siting Board in future matters.

In the present matter, the Intervenors seek to draw a residential density boundary narrowly around residential structures, excluding the entirety of lots on which the residential structures sit, that wraps around a 90-degree turn in the road that is narrow in width but spans over 1.5 miles in length. Conversely, Lost City logically uses—and the statute should be interpreted to require consideration of—the entire parcels on which residences sit to determine residential density. These two methods of testing residential density yield wildly different results. Lost City's consideration of parcels in their entirety to evaluate residential density provides the Siting Board with the entire context of a five-acre area on which residential structures sit and is a more accurate evaluation of residential density. Even more, the Siting Board can replicate this residential density test in future matters before the Siting Board.

In fact, the Siting Board has used this or a similar approach in evaluating recent applications. In Dogwood Corner LLC's application for a construction certificate before the Siting

[17] *Id*.

Board, a smattering of homes were located within 2,000 feet of the proposed project boundaries.[18] Yet, in that case, the Siting Board found that there was no residential neighborhood within 2,000 feet of the proposed facility[19] despite sixty percent of the adjoining parcels to the property being used for residential purposes.[20] The Siting Board applied a logical approach in the Dogwood Corners matter when it made its decision about the existence of a residential neighborhood. The Siting Board's review considered five-acre areas along the project's boundary including the entirety of each lot and determined no residential neighborhoods existed.

The Intervenors' argument ignores the commonsense approach to defining a residential neighborhood. Planning and zoning ordinances are instructive on other regulatory approaches to defining what is residential. While Muhlenberg County has not adopted zoning ordinances, other Kentucky communities' ordinances are instructive in this matter as they center on lot sizes. In nearby Dawson Springs, Kentucky, the subdivision zoning ordinance requires that a planned residential development must contain "not less than two acres" and all lots have a minimum of 2,500 square feet in area.[21] Similarly in Madisonville, Kentucky, local officials have determined the minimum lot sizes for residential structures in different areas: a rural residential lot requires a minimum of one acre per lot; [22] a low-density residential zone requires a minimum lot size of 12,000 square feet; [23] a medium-density residential area, consisting of a maximum of 13 dwelling units per acre, has a minimum requirement of 6,000 square feet for the lot; [24] and a high-density

[18] *Dogwood Corners LLC*, Case No. 2023-00246, Application, Attachment A.
[19] *Dogwood Corners LLC*, Case No. 2023-00246 at 9 (KSB March 8, 2024).
[20] *Id*. at 8.
[21] Dawson Springs Zoning Ordinances, Section 3.11 at 13-14, https://www.hopkinscountyplanning.org/_files/ugd/79eb39_01468dd0456341398e7a0aae12857086.pdf.
[22] Madisonville Zoning Ordinances, Section 3.4 at 17, https://www.hopkinscountyplanning.org/_files/ugd/79eb39_dc7847ad3d6148c0ad1fac5778d9ee3c.pdf.
[23] *Id*. at Section 3.5 at 18.
[24] *Id*. at Section 3.6 at 19.

residential area, consisting of a maximum of 20 dwelling units per acre, requires a minimum lot size of 3,000 to 5000 square feet based on the nature of the residential structure plan. [25]

Both Dawson Springs and Madisonville contemplate that residential neighborhoods will likely contain multiple residential structures per acre. An acre is 43,560 square feet. In the case of a planned development in Dawson Springs, a total of lots measuring 2,500 square feet could be located on one acre. In Madisonville, three residential structures could be located on 12,000 square feet lots on one acre in a low-density residential zone. Both Cities' residential neighborhood classification requires a consideration of the lot or parcel on which residences are located – not just the residential structure.

In the present matter, residential structures surrounding the project are generally situated on substantially larger lots than those contemplated by planning and zoning regulations. As described and depicted in response to Item 19 of the Second Request for Information, while residences located along Free Lane are within 2,000 feet of proposed structures (solar panels) used for generation of electricity, the homes along Free Lane do not meet the definition of a residential neighborhood set forth in KRS 278.700(6). Using size of lots, no five or more parcels with residential structures along Free Lane have a density of a residence per acre (see attachment 2-19). The parcels on Free Lane range in size from 0.3 to 10.87 acres. The smallest contiguous set of five parcels with residential structures on Free Lane have lots of 0.83, 2.59, 1.65, 1.25, and 0.39 acres, which totals 6.71 acres. In addition, another set of contiguous set of five parcels with residential structures on Free Lane have lots of 2.28, 1.37, 1.25, 0.39, and 1.65 acres which totals 6.94 acres

[25] *Id*. at Section 3.7 at 21. See also local zoning ordinances Barren County and Fayette County for similar lot size regulations. (Barren County Zoning Ordinances, Sections 5-26 to 5-29, https://jccpc-ky.com/wp-content/uploads/2024/04/Subdivision-Regulations-2024-Website.pdf; Fayette County Zoning Ordinances, Sections 8-5 to 8-9, https://codelibrary.amlegal.com/codes/lexingtonfayettecoky/latest/lexingtonfayettecoky_zone/0-0-0-14672.)

with five residential structures. These do not meet the density requirements to qualify as a residential neighborhood, as set forth in KRS 278.700(6).

Ultimately, the residential structures surrounding the Lost City project do not constitute a residential neighborhood pursuant to KRS 278.700(6) because they do not meet the residential density requirement for a neighborhood as set forth in KRS 278.700(6). Logical review of the sparse grouping of homes around the Lost City project indicates that no residential neighborhoods are located within 2,000 feet of the project based on the entirety of the parcels on which the residential structures sit.

As mentioned in Lost City's initial Brief, if the Siting Board determines that there is a residential neighborhood as defined by KRS 278.700 within 2,000 feet of the project, Lost City respectfully requests that the Siting Board grant a deviation from the statutory setback requirement, as authorized by KRS 278.704(4).

2. Scenic Surroundings

The Lost City project will not negatively impact on scenic surroundings. The Siting Board's own consultant found as related to "noise, scenic surroundings, historic and archeological, environmental and fugitive dust" factors provided in KRS 278.710(3)(a)(8), (b), (d), and (e), that the project – as modified by ongoing cooperation with and input from neighbors and local stakeholders – "is fully in compliance with the intent of the Kentucky Revised Statutes."[26]

Lost City has worked with local stakeholders to modify its project design to address public concerns[27] and has proposed specific mitigation measures to address any potential impact to scenic surroundings. Lost City plans to implement extensive vegetative screening around the project to minimize any viewshed disruption to neighboring property owners. Lost City will plant around

[26] Elliot Engineering Site Assessment Review at 47.
[27] Response to KSB RFI 1-54.

30,456 linear feet of screening around the project, approximately 2,048 trees and 4,946 shrubs.[28] In areas adjoining a residential parcel, Lost City will install a double planting of vegetative screening that will be approximately 40 feet wide. Lost City will maintain plantings and replace them when necessary.[29]

Lost City will preserve existing vegetation where it is feasible to minimize viewshed disruption and will only remove vegetation where necessary for the construction and operation of the project.[30] It will also install native plant species to the area to encourage wildlife and pollinator productivity.[31] Lost City will preserve topsoil during construction and will re-spread it on the project site prior to revegetating the area with plant native grasses and forbs to further attract pollinators, promote soil health, and offer aesthetic value to the project.

Lost City has also made plans to minimize risks relating to inclement weather or other strong natural impacts.[32] A stormwater pollution prevention plan will manage stormwater effects from land clearing and grading and will protect local water quality.[33] Lost City will also mulch the area to control potential drainage impacts. As part of the project development, Lost City studied streams and wetland delineations.[34] No federal or state regulations establish specific wetland buffers, but Lost City consulted with the Kentucky Division of Water and is implementing the recommended 25-foot buffer around all jurisdictional wetlands.[35] Additionally, Lost City's project design keeps all solar facility equipment outside the 100-year floodplain on the property.[36] An

[28] Response to KSB RFI 1-32; Site Assessment Report, Appendix M.
[29] Site Assessment Report at 11.
[30] *Id*.
[31] *Id*.
[32] *Id*. at 10.
[33] *Id*. at 12.
[34] *Id*.
[35] Response to KSB RFI 1-20.
[36] Site Assessment Report, Appendix B; See the attached **Exhibit 1**, FEMA 100-Year Floodplain Crossing Preliminary Design.

access road for construction and maintenance will cross the edge of this floodplain, but it will be designed not to decrease floodplain storage. In compliance with KRS 151, Lost City will obtain a permit for the development of this road in the floodplain. Lost City will also employ appropriate buffering around manmade features on the property such as cemeteries[37] and an existing gas pipeline.[38] The Lost City project will have no negative impact on scenic surroundings.

3. Property Values

The Lost City project will have no negative impact on property values for adjoining properties. Lost City submitted a Property Value Impact Analysis conducted by Kirkland Appraisals for the Siting Board's review of this matter, which Elliot Engineering reviewed in its Consultant's Report. Expressing clear affirmation of the Kirkland Appraisals report, Elliot Engineering found:

> Considering my analysis of the Lost City Impact Study I have concluded that the report is credible and representative of the market conditions that would exist should the Lost City Solar Project be constructed based on the market evidence and interpretation of the data contained in the Impact Study. The report includes a review of current published studies on property value impacts associated with solar projects, paired sales analysis of solar projects in Kentucky and adjoining states ranging in size from 2.7 to 617 MW, with data from 74 National solar projects, and interviews with real estate professionals and real property assessors.[39]

The Intervenors not only criticize but also mischaracterize Mr. Kirkland's analysis in this matter. Specifically, the Intervenors state, "when asked whether or not greater setback from the solar facility lessens the impact on the values of surrounding properties . . . the less is the impact on values; he agreed the greater the setback the less the impact."[40] This simply is a mischaracterization of the hearing testimony.[41] At the hearing, the Intervenors questioned Mr.

[37] Site Assessment Report at 12.
[38] *Id*. at 34.
[39] Elliot Engineering Site Assessment Review at 48.
[40] Brief of Intervenors at 9 (June 27, 2025).
[41] VR 6/13/2025, 1:01:56-1:02:57.

Kirkland on a study conducted by the University of Texas, cited in his Property Value Impact Analysis,[42] which had a high negative impact on property values. On cross-examination, the Intervenors posed a question to Mr. Kirkland relating to the setback distances and relating to property value impacts. In his response, Mr. Kirkland clarified that though the Intervenors' proposition was reasonable, it was inapplicable to the results of the Texas study. The study focused on a large solar project with only 100-foot setbacks from homes with no landscaping or other screening.[43] The negative impact on property values, Mr. Kirkland testified, was not simply based on setbacks but also included "landscaping screening being missing from that analysis" as an additional factor for negative impact.[44]

During another recent hearing, the Siting Board questioned Mr. Kirkland on the impact of setbacks of solar projects to property values.[45] Mr. Kirkland testified that the different size of setbacks does not create a significant difference on property value impact because there are a myriad of inputs, such as viewshed impacts, that factor into a potential impact on property value.[46] In the present case, Mr. Kirkland's report states, "The adjoining properties are well set back from the proposed solar panels with supplemental landscaping as needed to provide a landscaped buffer" and he expects the project to have no negative impact to property values.[47]

Kirkland Appraisals, and specifically Richard Kirkland, has prepared property value impact reports in numerous other similarly situated applications before the Siting Board. The Siting Board has never rejected Mr. Kirkland's reports or found any defect in his methodology or

[42] Site Assessment Report, Appendix A at 21.
[43] VR 6/13/2025, 1:02:13-1:02:20.
[44] *Id*. at 1:02:43-1:02:57.
[45] *SSTMO BN, LLC (Starfire)*, Case No. 2024-00255, VR 6/18/2025, 50:54-51:40.
[46] *Id*. at 50:54-51:40.
[47] Site Assessment Report, Appendix A at 1-2.

overall assessment of a solar project's impact to neighboring property values.[48] In fact, despite the Intervenors attempts to discredit Mr. Kirkland, even in the Horseshoe Bend application, the Intervenors reference, the Siting Board found, "there is sufficient evidence to conclude that the proposed Horseshoe Bend solar facility will more than likely not have any adverse impact on nearby property values" – an affirmation of Mr. Kirkland's property value assessment.[49] The Intervenors' attempt to discredit Mr. Kirkland is unwarranted. The Siting Board has repeatedly adopted Mr. Kirkland's findings, which use the same methodology as that applied in the Lost City property value analysis, and the Intervenors have not provided any other evidence to rebut Mr. Kirkland's findings. The Lost City project will not impact neighboring property values.

4. Noise

The Lost City project will have no lasting noise impact on adjoining properties. Elliot Engineering confirmed this in its Consultant's Report.[50] The Intervenors base their arguments against noise on what they characterize as "unwanted sound" during operations. Yet, as the Noise Analysis Report states, during the project operation "ambient sound environment would return to existing levels," and any noise produced by the solar panels "are below typical background sound levels in rural areas."[51]

During operation, the ambient sound environment would return to existing levels. The moving parts of the solar panel arrays would produce minimal sound. At the nearest residence, the inverters would produce sound levels of approximately 40.9 dBA, and the Project substation transformer would emit approximately 30.5 dBA. These sound levels are below typical

[48] See *Kentucky Municipal Energy Agency*, Case No. 2024-00290, VR 2/19/2025, 2:15:53; *Pine Grove Solar, LLC*, Case No. 2022-002262, VR 4/25/23, 2:16:02; *Banjo Creek Solar LLC*, Case No. 2023-00263, VR 1/23/2024, 2:54:33; *Song Sparrow Solar LLC*, Case No. 2023-00256, VR 1/23/2024, 10:14.
[49] *Horseshoe Bend Solar, LLC*, Case No. 2020-00190 at 17 (KSB June 11, 2021).
[50] Elliot Engineering Site Assessment Review at 47
[51] Site Assessment Report, Appendix D at 19.

background sound levels in rural areas. In addition, nighttime operation will result in lower sound emissions, as power will not be generated, and therefore the solar inverters and substation transformer will be operating in stand-by mode. As a result, the noise impacts from project operation are anticipated to be minimal to negligible. Cloverlake concluded that "[t]he data and conclusions contained in the Site Assessment Report for the Lost City Solar project regarding Anticipated Noise Levels is in compliance with the intent of KRS 278.708."[52]

5. Economic Impact

The Lost City project will provide a positive impact on Muhlenberg County. In the Consultant's Report, Elliot Engineering concluded:

> Based upon the representations of the Lost City through its revised Report, there is a positive, significant, short-term initial economic during the Construction Phase for the Commonwealth of Kentucky, Muhlenberg County, and the region. During the longer Operational (generation) phase, there are positive sustained economic benefits for the state and Project area.[53]

Dr. Paul Coomes' Economic Analysis found that the project will positively impact Muhlenberg County and the surrounding region through job creation[54] and increased tax revenue to Muhlenberg County and the Commonwealth.[55]

Dr. Coomes provided additional, clarifying information regarding the potential economic impact of the loss of timber acreage.[56] Dr. Coomes' analysis revealed, "although . . . there would be a slight negative local impact of lost timber, this impact is quite small compared to the relatively large net benefits of the project, including the estimated net labor income of $83.8 million."[57]

[52] Elliot Engineering Site Assessment Review, Attachment A at 8.
[53] Elliot Engineering Site Assessment Review at 49.
[54] Application, Attachment G at 1.
[55] Response to KSB RFI 1-66, Revised Economic Impact Analysis at 1-2.
[56] Response to KSB Post-Hearing RFI 3.
[57] *Id*.

The Lost City project will provide a significant positive net benefit to the Muhlenberg County and regional economy through this project.

6. Mitigation Measures

Lost City has outlined 49 mitigation measures it plans to adopt upon the approval of this project,[58] and has made various other commitments during the pendency of this application.

The Intervenors raise numerous other topical concerns with the project. Lost City has fully addressed each area of concern in the mitigation measures it has proposed or in various commitments it has made throughout the pendency of this case. Lost City refers to the 49 mitigations in the record in their totality, and notes several mitigation measures specifically referenced in the Intervenors' brief.

- Timber - The Intervenors' characterization that Lost City has not accounted for potential effects of timber clearing is simply misplaced. As addressed in more detail above, and in Lost City's post-hearing brief, Lost City has a clear plan to manage the effects of land clearing and potential draining issues on the project site. Lost City will plant vegetative screening around the project site[59] and native pollinators on the project site.[60]
- Floodplain - Preliminary designs for the project keep solar facility equipment (e.g., solar panels, inverters, substation, and security fence) outside the 100-year floodplain, as shown on the attached Exhibit.[61] A construction and maintenance access road will cross the edge of the 100-year floodplain. The access road will be designed in such a way that it will not decrease floodplain storage. In compliance

[58] Site Assessment Report at 10-15.
[59] Response to KSB RFI 1-32; Site Assessment Report, Appendix M; Site Assessment Report at 11.
[60] Site Assessment Report at 11.
[61] Site Assessment Report, Appendix B; *see also* attached Exhibit 1.

with KRS 151, the Lost City will obtain a permit for development in, along, or across a stream (floodplain permit) from the Kentucky Division of Water and the Muhlenberg County Floodplain Coordinator.[62] Lost City will use a stormwater pollution prevention plan to manage grading, drainage, and other stormwater impacts during construction and operation.[63] Finally, Lost City will employ a 25-foot buffer around all jurisdictional streams and wetlands,[64] and will also employ appropriate buffering around manmade features on the property such as cemeteries[65] and an existing gas pipeline.[66]

- Site Selection - The Intervenors' assertion that Lost City has selected an inappropriate site for the project is misguided. Lost City selected a site that would allow the project to inject the maximum amount of power into existing infrastructure, is near existing grid infrastructure capable of accepting the increased load, and would not take excessive acreage of farmland out of agricultural production.[67] The site selection was a meticulous process that involved significant engineering and environmental factors to ensure the site was compatible with the project. In fact, as listed above and in the post-hearing brief, Lost City conducted numerous, non-required studies to ensure the site was compatible with the project. The application before the Siting Board does not require the Siting Board to consider other potential locations for the site. Rather, the Siting Board's task is to

[62] See Response to KSB RFI 1-25; RFI 1-49.
[63] Site Assessment Report at 12.
[64] Response to KSB RFI 1-20.
[65] Site Assessment Report at 12.
[66] *Id*. at 12-13.
[67] Response to KSB RFI 1-19; VR 6/13/2025, 4:47:15-4:48:41, 4:49:12-4:49:23.

evaluate Lost City's application for compliance with the statutory criteria set forth in KRS 278.710.

- Traffic – Lost City will develop a road use agreement with the Muhlenberg County Road Department and the Muhlenberg County Fiscal Court that will include Lost City's responsibility to fix or pay for damage to roads or bridges resulting from transportation. Lost City will also develop a traffic management plan to minimize the flow of traffic during the construction phase of the project.[68] Lost City's initial traffic study did not account for the impact of tree removal, but the timber removal will have minimal impact on the traffic surrounding the project.[69]
- Wildlife - While not required as part of the Siting Board process, Lost City prepared multiple threatened and endangered species and other wildlife studies and analyses as part of the application process (Site Assessment Report, Appendix M; RFI 1-62 Appendices A, B, and C). These studies include a federally listed threatened and endangered species habitat assessment, a threatened and endangered bat mist-net survey, and an eagle-raptor nest survey. Cloverlake identified in Section 9.0 that the Lost City conducted additional studies as part of the project's environmental assessment.[70]

Lost City has initiated discussions with TVA, U.S. Fish and Wildlife Service Kentucky Field Office (USFWS), and the Kentucky Department of Fish and Wildlife Resources (KDFWR). The project also used the USFWS Information for Planning and Consultation (IPaC), which is a planning tool that streamlines the

[68] Site Assessment Report at 12.
[69] Response to KSB Post-Hearing RFI 2.
[70] Elliot Engineering Site Assessment Review, Attachment A at 18.

USFWS environmental review process. This tool identifies whether any federally listed threatened or endangered species, such as threatened or endangered bat species, or other natural resources may be impacted by the project. IPaCs Endangered Species Act (ESA) Review process provides a step-by-step consultation process.

During the bat mist-net survey, no federally listed endangered Indiana bats or northern long-eared bats were captured. While one federally listed species, the gray bat, was captured on site. The USFWS has not required mitigation recently for the gray bat. The gray bat occupies caves or cave-like structures, and no caves, bridges, or culverts are expected to be affected. On July 1, 2025, the USFWS completed a five-year status review of the gray bat and has recommended that the gray bat be delisted from the Federal List of Threatened and Endangered Species. The eagle-raptor survey did not identify any eagle nests on site.

While the Project may temporarily displace some local wildlife, none of the wildlife species that were mentioned in the concerns are protected species, and all would be considered common species in Kentucky.[71] Impacts are expected to be temporary because deer dispersion is natural and only the vegetation within the project site would be impacted while forest and vegetation directly outside of the project site would remain. Additionally, it is estimated that there is approximately one coyote for every square mile in Kentucky. Based on the behavior of coyotes including distribution, foraging, breeding, and dispersal, it is unlikely that noticeable impacts would occur.

[71] Response to KSB RFI 1-31; Site Assessment Report, Appendix M.

When completed, the project will be revegetated with native grass and forb species, trees and shrubs will be planted in the buffer area and pollinator plots are also planned for development. This habitat mix may increase local and migratory bird numbers due to increased and diversified habitat availability for cover and foraging. Studies have indicated that solar development may increase the diversity of birds and other pollinators present.[72] For example, both dove and quail are ground nesting birds, which benefit from native grass and forb planted areas for nesting habitat. Quail will utilize native grassland habitat as nesting habitat brooding areas and cover throughout the seasons.[73]

- Glare – Lost City submitted a Glare Analysis[74] evaluating 39 observation points and five roadway segments. The report predicted that no red glare would occur, and green and yellow glare would only occur for short periods of time during the year. The glare modeling did not include the planned vegetation or other viewshed factors that will likely reduce the project's glare impact.
- Dam - Based on a review of Geographic Information Systems (GIS), aerial imagery, US Geological Survey topographic maps, and site reconnaissance, Lost City considers the dam to be "unregulated." Under KRS 151.100, "'Dam' means any artificial barrier, including appurtenant works, which does or can impound or divert water, and which either:

  (a) Is or will be twenty-five (25) feet or more in height from the natural bed of the stream or watercourse at the downstream toe of the barrier, as determined by the cabinet; or

[72] Site Assessment Report, Appendix M at 3 (citing Jarčuška et al. Solar parks can enhance bird diversity in agricultural landscape J. Environ. Manag. (2024) Accessed on December 2, 2024).
[73] *Id*. (citing Quail Forever, 2023. Native Plants for Pollinators, Building Habitat from Home Available at: https://quailforever.org/Special-Events/Pollinator-Week.aspx. Accessed on November 20,2024).
[74] Site Assessment Report, Appendix F.

(b) Has or will have an impounding capacity at maximum water storage elevation of fifty (50) acre-feet or more"

The dam height appears to be below 25 feet from the natural bed of the stream at the downstream toe of the dam. Based on Light Detection and Ranging (LiDAR) and USGS topographic mapping, the dam height appears to be lower than 20 feet at the highest point and around 10 feet in height at some locations. In addition, the impounding capacity is less than 50 acre-feet. For calculations, the Lost City used the size of impoundment (approximately 4.4 acres) and a conservative 10 foot average depth across the entire impoundment to determine potential impounding capacity. Based on the site and aerial photos, the impoundment is almost certainly shallower in places. Also, the dam has been in place for approximately 45 years, and it is likely that siltation has severely reduced impoundment capacity.

- Gas Wells – As Lost City addressed in the Siting Board's Post-Hearing Request for Information, the four inactive gas wells on the project site have been properly plugged and abandoned, per Kentucky statutes and regulations at the time of closure.[75]
- Cemeteries – No federal or state requirements exist for cemetery buffer zones or mitigation requirements. Muhlenberg County does not have any cemetery buffer requirements. However, to avoid potential impacts to the Gardner and Wellborn Cemeteries within the project Site, Lost City established a minimum 50-foot buffer from the cemetery boundaries to any security fencing around the project. While there is no indication of graves outside the cemetery boundaries, the buffer was established in case there are unmarked graves adjacent to the marked graves. The

[75] Response to KSB Post-Hearing RFI 1.

project will not directly affect the on-site cemeteries. The existing access road to the Gardner Cemetery will remain unchanged and the access to the Wellborn Cemetery will be improved (see proposed Mitigation Measure 33). Lost City's intent is to allow family members, other relatives or interested parties to continue to visit the cemeteries. Offsite cemeteries would not be affected and no impacts to access to those cemeteries are expected. The Hughes Cemetery is located outside of the Project Area and is approximately 1,000 feet from the nearest solar array; 1,500 feet from the substation; and 1,550 feet from the nearest inverter.

- Archaeological and Historic Resources – The Lost City has prepared a cultural historic and an archaeological desktop review.[76] A site reconnaissance was completed as part of both of these reviews as well. These cultural resource desktop reviews include a 2-kilometer buffer (1.6 miles) around the Project Site as recommended by the Kentucky Heritage Council, which is the State Historic Preservation Office (SHPO). As part of these reviews, SHPO and Kentucky Office of State Archaeology (OSA) databases and cultural resource site information were checked for known cultural resource sites and surveys in the Project Area.

  Further cultural resource studies will occur as part of the TVA National Environmental Policy Act (NEPA) process. Based on discussions with TVA, no ground disturbing activities, including shovel test probes (STPs), augering, etc., which are used to identify cultural resources and sites, should not be undertaken the NEPA process is initiated and consultation with TVA cultural resource staff takes place. The rationale for this limitation is that TVA will be the lead federal agency

[76] Response to KSB RFI 1-63, Appendices D and E.

for the National Historic Preservation Act Section 106 consultation.[77] Section 106 is triggered by the need for a federal approval or permit. TVA requires cultural historic and archaeological surveys as part of the TVA NEPA process.

The Consultant's Adequacy Report determined that the historic and archaeological information submitted as part of the application submitted by the Lost City is fully in compliance with the intent of the Kentucky Revised Statutes.[78]

CONCLUSION

Lost City has satisfied the criteria for the Siting Board to approve a construction certificate for this project. The evidence in the record is clear that Lost City's application comports with each requirement of KRS 278.710. Moreover, the Siting Board's independent consultant confirmed that the project meets the statutory requirements and that the site is well suited for the project. Accordingly, the Siting Board should approve Lost City's application for construction certificate.

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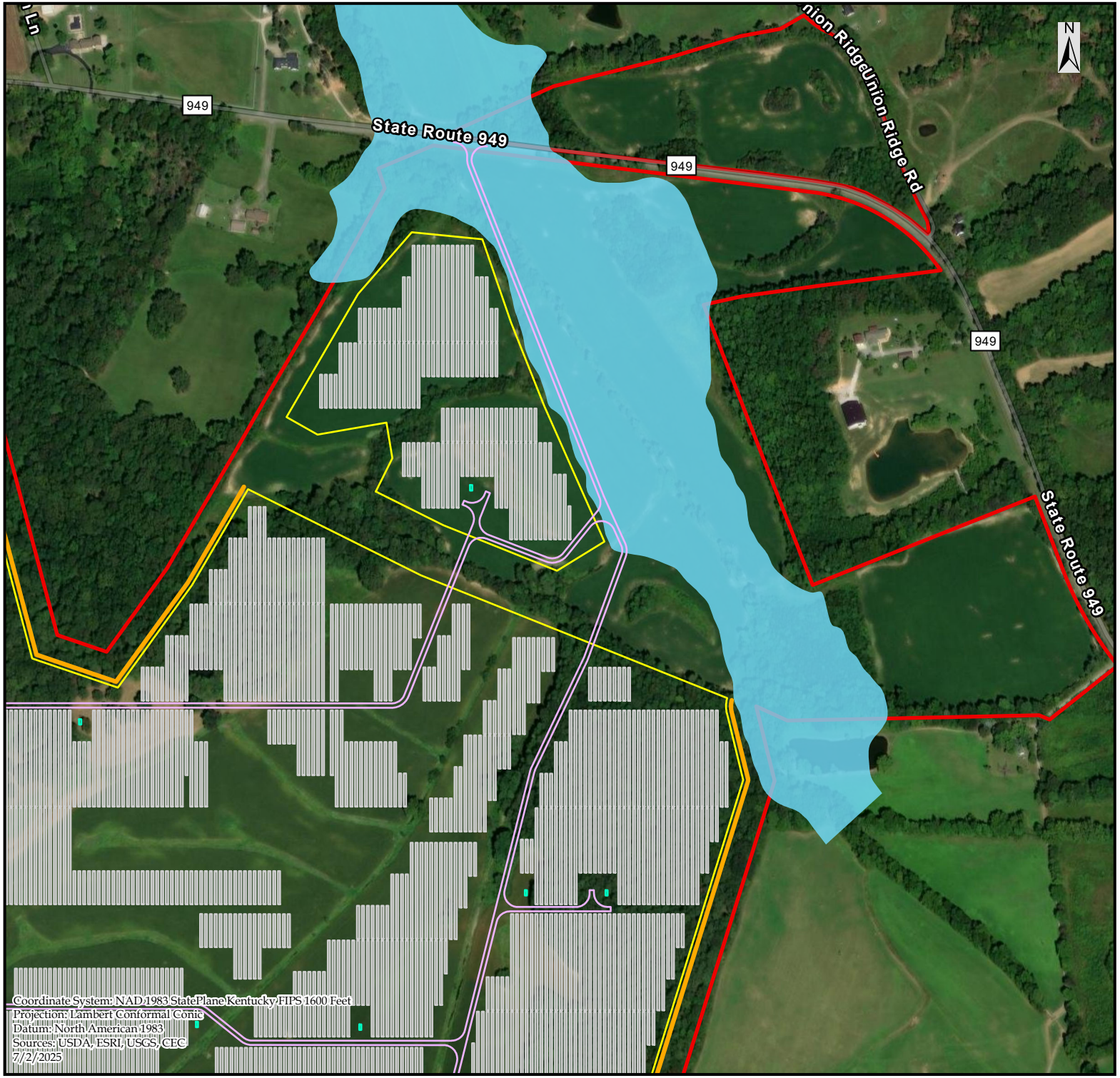
ATTORNEYS FOR LOST CITY SOLAR LLC

[77] Response to KSB RFI No 1-49.
[78] Elliot Engineering Site Assessment Review at 47.

Exhibit 1



COPPERHEAD
ENVIRONMENTAL CONSULTING

Prepared for:

Lost City Renewables, LLC

FIGURE 1:
FEMA 100-year Floodplain crossing the Lost City Solar Project, Muhlenberg County, Kentucky.

Legend

- Array
- Fence
- Inverter
- Access Road
- 100-Year Floodplain
- Firebreak
- Project Area

0 250 500
US Feet

Scale: 1 in = 500 ft

Prepared by :
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Drawn by:	TC	Date:	7/2/2025
Checked by:	MM	Revision:	01