

TAB 12 SITE ASSESSMENT REPORT

Pike County Solar Project, LLC (the “Applicant” or “Pike County Solar”), pursuant to KRS 278.708, files this Site Assessment Report (SAR) as specified in KRS 278.708 contemporaneously with its application requesting from the Kentucky State Board on Electric Generation and Transmission Siting (the “Siting Board” or “Board”) a certificate of construction for an up to 100-megawatt (MW) merchant electric solar generating facility (the “Project”).

As part of the SAR, the Applicant submits herewith SAR Exhibits A-H. The facts on which the SAR are based are contained in the concurrently filed SAR Exhibits and other information and the statements further made by Pike County Solar as follows:

I. Description of the Proposed Project Site

1. Pursuant to KRS 278.708(3)(a), the proposed Project is situated on a 1,543-acre site located within unincorporated Pike County, Kentucky, (SAR Exhibit A). The Project footprint, generally the area within the fence line where Project infrastructure will be located, includes approximately 500 acres.

2. Pursuant to KRS 278.708(3)(a)(1), a detailed description of the surrounding land uses is identified in the Property Value Impact Study conducted by Kirkland Appraisals, LLC, and attached as SAR Exhibit B. A summary of the surrounding land use is contained in the chart below:

Adjoining Use Breakdown	Acreage	Parcels
Residential	16.27%	64.79%
Agricultural	71.55%	28.17%
Agri/Res	6.97%	4.23%

Utility	0.77%	1.41%
Industrial	4.43%	1.41%
Total	100%	100%

3. Pursuant to KRS 278.708(3)(a)(2), SAR Exhibit C contains the legal description of the proposed site.

4. Pursuant to KRS 278.708(3)(a)(3), the proposed facility layout is included in SAR Exhibit A, as well as Attachment A of the overall application. A six-foot chain link fence meeting National Electric Safety Code (NESC) requirement will secure the solar arrays with locked access gates. A six-foot chain link fence with 3 strand barbed wire angled outward meeting NESC requirement, will secure the substation.

5. Pursuant to KRS 278.708(3)(a)(4), the proposed locations of all Project infrastructure (buildings and other structures) are included in the Site Layout in SAR Exhibit A.

6. Pursuant to KRS 278.708(3)(a)(5), proposed access points are shown in SAR Exhibit A.

7. Pursuant to KRS 278.708(3)(a)(6), the onsite substation will connect to the existing electric grid via the Excel to Johns Creek 138kV by an approximate 1-mile long, non-regulated transmission line, part of the Kentucky Power/AEP power grid.

8. Pursuant to KRS 278.708(3)(a)(7), Pike County has not enacted any zoning ordinances or setback requirements for the location of the Project, and, therefore, no setbacks exist in the county. The Applicant will seek a slight reduction from the setback requirements provided at KRS 278.704(2) by filing a motion to deviate, pursuant to KRS 278.704(4), and thus the Project will meet the goals of the setback requirements with the lesser setbacks reflected in the motion to deviate.

9. Pursuant to KRS 278.708(3)(a)(8), a noise assessment was completed for the Project and

is included as SAR Exhibit D. This assessment evaluated existing noise conditions in the area as well as proposed noise from construction and operation of the Project. Existing noise in the Project area consists of those typical of roadways and natural wildlife noises (e.g. birds and insects).

The operational noise assessment revealed that Project-generated noise levels would be well below estimated existing conditions at all identified noise sensitive area (NSA) locations during daytime hours with all equipment in operation at full load. Similar operational noise levels, well below the estimated ambient condition, would occur during nighttime hours when only the transformers are in operation. Modeled levels were also shown to be well below the U.S. Environmental Protection Agency (USEPA)-recommended protective noise level at all nearby NSAs during both daytime and nighttime operating conditions.

The noise assessment indicates that during site operation, intermittent noise related to the panel tracking system and the noise of the inverters is expected. The increase in noise is negligible due to both the vertical and horizontal distances between the panels/inverters and the nearest noise-sensitive receptors. The nearest sensitive receptor is 1,094 feet from any solar panels and approximately 2,131 feet from an inverter. During average operation the inverters will be similar in an A-weighted decibel (dBA) noise level (~20 dBA) to a soft whisper at the nearest receptor and will only run when the facility is producing electricity (i.e., when the sun is shining).

According to manufacturer specifications, the loudest the transformer is expected to be is just over 80 dBA, at three feet from the source, or the level of a normal conversation. Since the nearest receptor is 2,534 feet from the substation, noise captured at the receptor would be less than typical background noise. Site visits and maintenance activities including single vehicular traffic and mowing will be negligible as they are similar to the background roadway noise

characteristics.

At the nearest receptors, no prolonged noise levels above background levels are expected either during construction or operations of the Project. Intermittent, repetitive noise will occur above background noise levels during pile driving activities. Only a few receptor locations would experience pile driving noise levels above ambient, and only when pile driving is occurring at the nearest approach to the receptor. General construction-related noise levels would be lower than pile driving noise.

II. Compatibility with Scenic Surroundings

10. Pursuant to KRS 278.708(3)(b), a series of Visual Impact Illustrations were completed from four observation points (OPs) demonstrating the viewshed of the Project from neighboring properties which are attached hereto in SAR Exhibit E.

11. A representative sample of potential viewpoints was identified within a 1-mile radius of the proposed Project. Viewpoints are locations from which the Project may be visible to human receptors, such as residents, motorists, pilots, recreationists, and tourists. Such viewers may be sensitive to potential glare caused by the photovoltaic (PV) panels. These viewpoints, referred to as “receptors” in the glare analysis results (SAR Exhibit F), were identified through review of aerial imagery, topographic maps, and other publicly available online mapping resources. Based on ERM’s review of the Federal Aviation Administration (FAA) database,¹ aerial photograph, and a Google Earth pro search, the nearest aircraft facility is the Pike County Airport (KPBX), located 6.3 miles west-southwest of the Project. ERM evaluated 2-mile-long straight-approach flight paths (FP 1 and FP 2) to Runway 27/09, respectively, at this airport as part of the glare analysis. As reported by the FAA, the approach glide slopes of Runway 27/09 are both 3 degrees, and the threshold crossing heights are 47 feet and 35 feet, respectively. The Pike County Airport does not

have an air traffic control tower (ATCT).

Although some green glare is predicted along flight path FP 2, the PV arrays contributing to this glare are located at least 8 to 10 miles east of the threshold of Runway 09 (the end of FP 2).

Given the proximity of proposed PV arrays to four viewpoints (OPs), the PV panels around OP 1, OP 2, and Ford Mountain Road would be highly visible with the potential for green and yellow glare to observers from these points at certain times of the year. Mitigation measures such as vegetative screening along Ford Mountain Road and programming the closest PV modules to backtrack to the shallowest possible angle of east/west rotation of 5 degrees or greater may reduce glare potentially observed along this road segment.

The viewpoints OP 3 and OP 4 are also located at the base of narrow valleys along creeks and are approximately 100 to 500 feet lower in elevation than the nearest PV arrays. Due to this topographic setting, existing forest vegetation, and distances and elevations between these viewpoints and the proposed PV arrays, the PV panels would not be visible at OP 3 and OP 4. For these same reasons, views of PV arrays from other residences in the Project vicinity are highly unlikely, and therefore no landscape screening is planned.

III. Property Value Impacts

12. Pursuant to KRS 278.708(3)(c), see SAR Exhibit B for a report studying potential property value impacts to owners adjacent to the proposed facility by a certified real estate appraiser. The conclusion of the report, Section XIV on page 110, reads as follows:

“Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will have no negative impact on the value of adjoining or abutting property. ”

IV. Anticipated Noise Levels at Property Boundary

13. Pursuant to KRS 278.708(3)(d), noise will occur temporarily and intermittently during

the construction phase of the Project due to increases in vehicular traffic, construction equipment, and assembly of the solar facility components. This construction noise is expected to be of short duration at any given location within the Project. The majority of the noise-producing activities will occur hundreds to thousands of feet from the nearest noise-sensitive receptors. The noisiest portion of the construction includes the use of pile drivers to install the solar panel supports. The worst-case maximum sound level [L_{max} (dBA)] expected to occur at the receptor identified 687 feet from the Project boundary (NSA 08) is 56 dBA, which contains a similar noise level to a typical office or public speech. The model was also evaluated without the inputs of the pile driver since that is more typical of ongoing construction sound levels. The sound levels for typical construction onsite range from an air conditioner to normal conversation. Construction activities at the Project site would move around the site and are not anticipated to be performed near a sensitive receptor for more than a few weeks.

14. The highest noise level modeled for any location along the Project property line is 51 dBA during daytime when the Project is operational. This point on the Project property line is approximately a 0.5-mile from the nearest receptor. All modeled noise levels assume Project sources operating at full load conditions. There will often be times when sources are operating at lower loads, with subsequently lower noise levels at the NSAs and the property line.

15. According to manufacturer specifications, the loudest the transformer is expected to be is 82 dBA (measured at a distance of 3 feet) or the level of a normal conversation. Because the nearest residential receptor is more than 2,534 feet from the substation, transformers are not expected to add additional noise above background noise.

Site visits and maintenance activities including single vehicular traffic and mowing will be negligible as they are similar to existing roadway and rural characteristics. At the nearest

receptors, no elevated and prolonged noise levels above background levels are expected either during construction or operation of the Project. See SAR Exhibit D for the full report studying the anticipated peak and average noise levels associated with the facility's construction and operation at the Project boundary.

V. Effect on Road, Railways and Fugitive Dust

16. Pursuant to KRS 278.708(3)(e), a traffic impact study was completed for the Project and is included as SAR Exhibit G. It evaluates the Project's impact on road and rail traffic, and degradation of roads.

17. The traffic study notes that the Project, with appropriate mitigation measures in place, will not produce significant adverse traffic impacts during construction or operation:

“As shown in the traffic analysis, the construction period trip generation of workers and trucks will not generate many trips on local roadways. US 119, KY 881, and KY 1426 will continue to operate at an acceptable LOS during the scenario of when construction traffic is added to the existing peak traffic counts and during the scenario when post-construction traffic is added to existing peak traffic counts. Although no significant or adverse traffic impacts are expected during project construction or operation, using mitigation measures such as ridesharing between construction workers, using appropriate traffic controls, or allowing flexible working hours outside of the peak hour could be implemented to minimize any potential for delays during the AM and PM peak hours. It is recommended that deliveries involving large heavy loads be scheduled during off-peak hours to minimize traffic impacts.”

18. Construction and associated land disturbance associated with the proposed Project may temporarily contribute airborne materials. The Project will comply with the provisions of 401 KAR 63:010 applicable to controlling fugitive dust emissions. It will utilize Best Management Practices (BMPs) which may include activities such as: appropriate revegetation measures, application of water, or covering of spoil piles, to minimize dust. Additionally, open-bodied trucks transporting dirt will be covered while moving. During construction activities, water may be applied to the internal road system to reduce dust generation. Water used for dust control is

authorized under the Kentucky Pollutant Discharge Elimination System (KPDES) as a non-stormwater discharge activity, which will be required for the proposed Project.

19. The Project will not be using railways for any construction or operational activities.

VI. Mitigation Measures

20. The Facility will be compatible with the existing land uses in the area. Construction methods will be implemented to minimize potential impacts on noise, dust, and traffic. Final Project design will also incorporate avoidance and mitigation measures for any sensitive resources such as wetlands, listed plant and animal species, and sensitive cultural resources identified during field studies. The existing topographical features result in significant shielding effects from the Project sources to the NSAs, resulting in very low modeled noise levels. Project-generated noise levels for daytime and nighttime operation are well below the USEPA's recommended protective noise level of 48.6 dBA for 24-hour operation at the NSA locations. Once the Project enters the operational phase, there will be no hazardous materials, pollutant emissions, or discernible sound outside of the facility.

21. Pursuant to KRS 278.708(4), the Applicant has implemented or intends to implement the following mitigation measures for the Project:

22. **Viewscape:** The Property Value Impact Study (SAR Exhibit B) conducted by Kirkland Appraisals, LLC concluded the Facility will have no impact on the value of adjoining or abutting properties and that the proposed land use is in harmony with the area in which it is located.

Based on the topographic, and any potential mitigation measures in highly visible areas along the road segment, visual impacts are not anticipated (Visual Impact Illustrations, SAR Exhibit E).

Based on the Glare Study (SAR Exhibit F), the glare, (green and yellow), and the durations predicted to be experienced at the nearby airport, flight paths, surrounding roads, residences, and

buildings is considered acceptable by existing standards and industry practice.

23. The Project has been designed to minimize the amount of tree clearing required.

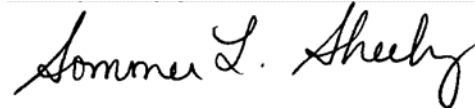
24. *USACE – Louisville District*: The Project will be designed to avoid impacts to Waters of the United States (WOTUS) delineated onsite. However, if impacts to such features becomes necessary, then Pike County Solar will coordinate with the USACE – Louisville District and the appropriate Clean Water Act (CWA) Section 404 permit will be obtained. If necessary, a CWA Section 401 Water Quality Certification and a Floodplain Construction will be obtained from the EEC Kentucky Division of Water (KDOW).

25. The regulation and permitting of utility-scale solar impacts to stormwater and WOTUS will be addressed separately with the appropriate agency.

26. *Kentucky DOW*: The Project will obtain a Kentucky Department of Environmental Protection Stormwater Construction General Permit from the Kentucky DOW in compliance with the CWA.

Dated this 13th day of May, 2024.

Respectfully submitted,



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