EXHIBIT F

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

In the Matter of:

ELECTRONIC APPLICATION OF FRON BN, LLC (FRONTIER SOLAR) FOR A CERTIFICATE OF CONSTRUCTION FOR AN APPROXIMATELY 120 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY AND NONREGULATED ELECTRIC TRANSMISSION LINE IN MARION AND WASHINGTON COUNTIES, KENTUCKY PURSUANT TO KRS 278.700 AND 807 KAR 5:110	)	Case No. 2023-00360

SITE ASSESSMENT REPORT

FRON bn, LLC (the "Applicant" or "Frontier 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 approximately 120-megawatt (MW) merchant electric solar generating facility and nonregulated electric transmission line pursuant to KRS 278.704 and KRS 278.714 (the "Project").

As part of the SAR, the Applicant submits herewith SAR Exhibits A-F. 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 Frontier Solar as follows:

I. Description of the Proposed Project Site

1. Pursuant to KRS 278.708(3)(a), the proposed Project is situated on 1,411-acres within unincorporated Marion and Washington Counties, Kentucky (SAR Exhibit A). The Project footprint, generally the area within the fence line where Project infrastructure will be located, includes approximately 935 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 adjoining residential and agricultural uses, with a breakdown of the uses by acreage summarized below.

Adjoining Use Breakdown	**Acreage**
Residential	3.65%
Agricultural	39.17%
Agri/Res	57.18%
Total	**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 and nonregulated electric transmission route are included in SAR Exhibit A, as well as Exhibit A of the overall application. A fence meeting National Electric Safety Code (NESC) requirements, typically a seven-foot fence, will secure the facility. A farm friendly fence with wooden posts and a wire mesh is being proposed to enclose the solar panels and associated infrastructure. A fence meeting the National Electric Safety Code (NESC) requirements, typically a six-foot chain link fence with three strings of barbed wire at the top, will enclose the Project's substation. The Project will comply with federal, state, and local regulations as applicable in determining safety signage locations around the facility.

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

6. Pursuant to KRS 278.708(3)(a)(5), proposed access points and internal roads are shown in

SAR Exhibit A. No railways are located within the Project.

7. Pursuant to KRS 278.708(3)(a)(6), the Project's onsite substation will connect to the existing electric grid via an approximately 8,739-foot (1.7-mile) overhead nonregulated electric transmission line to be constructed between the Project and the existing 138 kV utility substation, owned and operated by LG&E/KU ("Lebanon Substation"). Limited water and electric service may be required to provide for the operations and maintenance building and is anticipated to be provided by Inter-County Energy Cooperative or Salt River Electric. Additional water resources will be obtained from onsite wells or trucked in from an offsite water purveyor.

8. Pursuant to KRS 278.708(3)(a)(7), Marion and Washington Counties have not enacted any zoning ordinances or setback requirements for the location of the Project, and, therefore, no setbacks by such a planning commission exist in either county. Accordingly, the Project will not be required to follow setbacks established in KRS 278.704(3) because no local zoning is present.

9. The Applicant will file a request to deviate from the setback requirements provided at KRS 278.704(2) by filing a motion to deviate, pursuant to KRS 278.704(4), and thus it will comply with the relevant setback requirements provided at KRS 278.704.

10. 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 agricultural operations and rural areas, such as tractors, trucks, and various wildlife noises.

11. The Project site covers a very large area, and the noise levels experienced at any Noise Sensitive Area (NSA) will vary depending on what areas of the site are under construction. Construction site noise is a temporary activity, and there are no known noise limits or standards

applicable to construction. Pile driving will be the loudest construction activity, approximately 37,736 piles will be installed. However, piledriving will only occur for limited amounts of time. These temporary impacts are minimized by construction phasing and communication with adjacent landowners. See Table 8 below.

Table 8: Maximum Expected Pile Driving Noise Levels (dBA)

Receiver	Maximum Pile Driving Noise Level (dBA)
NSA 1	72
NSA 2	81
NSA 3	76
NSA 4	53
NSA 5	65
NSA 6	62
NSA 7	60
NSA 8	51
NSA 9	49
NSA 10	58
NSA 11	55
NSA 12	53
NSA 13	67
NSA 14	70
NSA 15	80
NSA 16	70
NSA 17	81
NSA 18	76
NSA 19	79
NSA 20	72
NSA 21	63

12. 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 (NSA 17) is approximately 350 feet from any solar panels and approximately 710 feet from an inverter (NSA 3). During average operation, the

inverters will be similar in noise level (~42 dBA) to the hum of a refrigerator 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 60 dBA at one meter from the source, or the level of a normal conversation. Since the nearest receptor is approximately 2,960 feet from the substation, noise emitted from 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 existing background agricultural noise characteristics.

13. 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 piledriving activities.

II. Compatibility with Scenic Surroundings

14. Pursuant to KRS 278.708(3)(b), a glare study was completed for the Project by ERM and is included as SAR Exhibit E. According to the glare analysis, vegetation and topography could assist in screening potential glare. Per the document the analysis predicted no red glare at any of the viewpoints accessed. The Project has also provided a series of Visual Impact Illustrations as part of its presentation for the publicly noticed information meeting (see Exhibit B-5 to the Application). The Visual Impact Illustrations demonstrate that the Facility will be compatible with the scenic surroundings and due to the rolling terrain, limited portions of the Facility will be able to be viewed.

15. Vegetative screening will be implemented to mitigate visual impacts of the facility. The proposed tree species are dwarf eastern white pine, wax myrtle, Nellie Stevens holly, Junior Giant thuja, eastern red bud, and flowering dogwood. These species will be a minimum of four feet tall

when planted and spaced six feet apart. These species, or similar species, will be implemented at the time of procurement and subject to change based on availability, cost, and stakeholder preferences.

16. The nonregulated electric transmission line will not significantly alter the viewshed due to presence of other existing transmission lines, the rolling topography, and existing vegetation.

III. Property Value Impacts

17. 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 109, 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. I note that some of the positive implications of a solar farm that have been expressed by people living next to solar farms include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from former farming operations, protection from light pollution at night, it's quiet, and there is no traffic."

IV. Anticipated Noise Levels at Property Boundary

18. 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 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 loudest portion of the construction includes the use of piledrivers to install the solar panel supports. The worst-case maximum noise [Lmax (dBA)] expected to occur at the nearest receptor (NSA 17) is 81 dBA, approximately 350 feet from the nearest pile, which will produce sound levels similar to a lawnmower, farm tractor, or heavy traffic. 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.

19. The nearest receptor will be at least 350 feet from any panel, and approximately 1,170 feet from an inverter. Sound levels from the tracking system can be expected to be the levels of the hum of a refrigerator at the nearest receptor (~45dBA), while the sounds will be much quieter at most receptors. During average operation, the inverters will be similar in noise level (~41 dBA) to a refrigerator at the nearest receptor. According to manufacturer specifications the maximum noise generated by the transformer is expected to be just over 60 dBA (measured at a distance of one meter) or the level of a normal conversation. Since the nearest residential receptor is more than 2,960 feet from the substation, transformers are not expected to add additional noise above background noise.

20. Site visits and maintenance activities including single vehicular traffic and mowing will be negligible as they are similar to existing agricultural noise characteristics. At the nearest receptors, there will be elevated intermittent noise during construction but no one existing NSA will be exposed to the same sound levels over an extended period of time as construction progresses through the site.

21. The operational noise assessment revealed that Project-generated noise levels would be well below estimated existing conditions at all identified NSA locations during daytime hours with all equipment in operation at full load. 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

22. Pursuant to KRS 278.708(3)(e), a traffic impact study was completed for the Project and is included as SAR Exhibit F. It evaluates the Project's impact on road and rail traffic, including anticipated fugitive dust and degradation of roads within vicinity of the facility.

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

> "Although no significant, 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 peak hours could be implemented to minimize any potential for delays during the AM and PM peak hours."

24. 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 in transit. 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.

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

VI. Mitigation Measures

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

27. Frontier Solar's generation 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. The Project's design will also incorporate avoidance and mitigation measures for sensitive resources such as wetlands, listed plant and animal species, and sensitive cultural resources. Vegetative screening will be implemented to mitigate any visual impacts of the facility. At the time of planting, these trees will be a minimum of four feet tall and six feet apart. They are expected to grow to heights of 15 to 20 feet. Once the Project enters the operational phase, there will be no hazardous materials, pollutant emissions, or discernible sound outside of the facility.

28. *Viewscape*: The Project is not expected to negatively impact public roadways. Based on the Glare Study (SAR Exhibit G), the glare, (green and yellow), and the durations predicted to be experienced at the nearby airports and helipad, flight paths, surrounding roads, residences, and buildings is considered acceptable by existing standards and industry practice. Based on feedback received from the Project's public information meetings, farm-friendly fencing that does not use barbed wire and is composed of wooden posts and a wire mesh rather than chain link fencing will be used to enclose the Project, excluding the substation to allow for safety requirements to be met. The Project has been designed to reduce and minimize the amount of tree clearing required. The Project has further committed to a minimum 300 foot setback from any adjoining nonparticipating residential property.

29. *Noise*: Construction noise mitigation measures may include measures such as maintaining construction equipment to ensure proper operation and routinely checking vehicles using internal combustion engines equipped with mufflers to ensure they are in good working order; locating noisy equipment as far as reasonably practicable from noise-sensitive areas and residences; and implementing a complaint resolution program during construction to address any noise-related issues. Potential noise from piledriving and other construction activities will be mitigated by implementing a phased construction schedule and limiting noise-causing activities to certain hours.

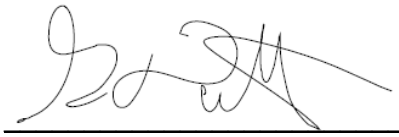
30. *Jurisdictional Waters*: The Project has been designed to avoid impacts to Waters of the United States (WOTUS) delineated onsite. However, if impacts to such features becomes necessary, then the impact will be minimized to the extent practicable, and the appropriate Clean Water Act (CWA) Section 404/401 permit will be obtained from the United States Army Corps of Engineers (USACE) and the Kentucky Energy and Environment Cabinet – Department of Environmental Protection – Division of Water ("Kentucky DOW"). The regulation and permitting of utility scale solar impacts to stormwater and WOTUS will be addressed separately with each appropriate agency.

31. The Project has been designed to avoid impacts to WOTUS. However, if impact becomes necessary then the Project will coordinate with the USACE – Louisville District to obtain the appropriate Clean Water Act (CWA) Section 404 permit. If necessary, a CWA Section 401 Water Quality Certification and a floodplain construction permit will be obtained from the Kentucky DOW. As required, the Applicant will obtain permit coverage for crossings from the USACE – Louisville District.

32. 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 28th day of December 2023.

Respectfully submitted,



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