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TO: Kentucky State Board on Electric Generation and Transmission Siting
 FROM: Mid-Atlantic Renewable Energy Coalition
 RE: Case No. 2020-00043
 DATE: December 11, 2020

Critical Solar Siting Issues for Siting Board Consideration to Enable Project Feasibility in Kentucky

Honorable Commissioners,

After reviewing recent public filings, the Mid-Atlantic Renewable Energy Coalition (MAREC) respectfully requests your reconsideration of several concerning conditions placed on Glover Creek Solar, LLC by the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board) in its Certificate to Construct Order. Glover Creek Solar, LLC is a member of MAREC, but we write today on behalf of our broader membership comprising many leading U.S. renewable energy developers, manufacturers, service companies, and non-profit organizations who do business in Kentucky and throughout the PJM regional transmission system. We believe some of the Siting Board's conditions on the Glover Creek solar project would do little to benefit Kentucky residents and would set harmful precedents for future solar projects going through the siting process—hampering Kentucky's ability to harness the economic and environmental benefits of solar power development.

Glover Creek Solar, LLC filed a Petition for Reconsideration and Clarification on October 19, 2020, in an attempt to address some of the Siting Board's conditions. MAREC is concerned about how these conditions, if not addressed, could inhibit additional solar development in the state. We are especially concerned with provisions in the Glover Creek Solar Certificate to Construct order related to sound standards, inverter and other equipment setback requirements, construction and delivery activity time restrictions, and vegetative screening requirements that could make projects non-viable despite otherwise sound economics. MAREC also supports the other clarifications that are raised in the Glover Creek petition regarding requirements for layout plan deviations, tamping, and road payments.

Our first concern relates to construction and operational sound standards. This was the sixth issue that Glover Creek raised in their petition. Glover Creek requested that the Siting Board confirm that only sound levels of 120 dB or greater at the project's external property boundaries would be considered unduly high or annoying. While Glover Creek can accommodate this sound standard, it could be prohibitive to other solar projects in the state.

Construction sounds at a solar project are comparable to other construction activities, which are rarely limited in an absolute way due to their temporary nature. **In that context, MAREC above all requests treatment regarding construction sound that is consistent with Kentucky and local laws governing other comparable construction activity sound levels.**

To ensure the feasibility of Kentucky solar projects, **sound should always be measured at the sound receptor (i.e. an occupied dwelling) instead of setting sound requirements based on property lines. A standard of 120 dB as a maximum is appropriate for temporary construction sounds, as measured at**

an occupied dwelling. Measuring sound at an occupied dwelling ensures regulations protect residents as intended, while not placing undue constraints on construction activity. **Additionally, we request that noise mitigation should only be required when sound exceeding 120 dB is anticipated to occur on weekends or after normal business hours, as measured at an occupied dwelling.**

During operation, the sound from a solar project is minimal. Inverters, the equipment that converts direct current (DC) electricity into alternating current (AC) electricity, can produce a soft sound during the daytime when a solar array is producing energy. A study of solar power facility acoustics in Massachusetts found that at 150 feet from an inverter pad, sound levels approached background levels.¹

It is worth highlighting that appropriate minimum setback standards described below should sufficiently address sound concerns.

It is also critical to the feasibility of solar development to not require a 2,000-foot setback for inverters. This is the seventh issue raised in the Glover Creek petition. Glover Creek notes in their petition that for their project, it would be feasible to require that all solar infrastructure (including inverters) be at least 100 feet from the project's external property boundaries, and central inverters, if used, shall be at least 150 feet away from the project's external property boundaries. **Going forward, MAREC requests the Siting Board to consider setbacks based on distance from receptors (occupied dwellings) as opposed to property lines. An appropriate setback that would be workable more broadly for the solar industry is at least 150 feet from receptors (occupied dwellings) for all solar infrastructure (including central inverters if used).**

Even with the comparatively low levels of sound produced by solar projects, compliance with sound standards can be better ensured when the point of measurement remains constant across scenarios. Determining setback distances from occupied human dwellings, rather than property lines, ensures that neighbors are not unduly impacted by project sounds in the places where they spend the most time. Additionally, setting back from cropland or otherwise relatively un-traveled land is not a good use of resources, is a financial burden to the project, and does not benefit the community. Kentucky parcels often follow the natural terrain or are otherwise uniquely shaped. Creating setbacks from property lines can severely impact project layouts and unduly limit participating landowners from including their land in the solar project. Such an approach would also require developers to lease more land than is necessary. This can compound itself as setbacks increase and the adequate available usable area for rows of solar panels diminishes.

Another critical issue pertains to the permissible construction and deliveries activity window set forth in the Siting Board's order. We urge a revision of the activity window to, at a minimum, permit construction and deliveries between 7am and 9pm any day of the week—rather than from 8am-6pm Monday-Saturday as stipulated in the order. This is the fourth point raised in the Glover Creek petition. Constraining construction hours as proposed in the Siting Board's order would raise costs on solar projects and significantly lengthen the duration of construction. Generally, permissible hours for construction activity should be consistent with county rules governing comparable construction activity.

¹ Guldberg, Peter H. Tech Environmental, Inc. Prepared for the Massachusetts Clean Energy Center. *Study of Acoustic and EMF Levels from Solar Photovoltaic Projects*. December 17, 2012.

Finally, to ensure solar development is feasible in Kentucky, vegetation buffer requirements should not be overly burdensome. The second and third points raised in the Glover Creek petition deal with this issue. For development to be feasible, vegetation buffer requirements need to be set at a level that is sufficient to reduce impacts, while avoiding unnecessary cost. Glover Creek's plan to include 15-foot wide vegetative buffer consisting of two staggered rows of evergreen shrubs should be sufficient, even if non-mature shrubs of at least 3 feet are included. Requiring mature plantings would drive up costs significantly. Additionally, requirements to implement vegetative buffers for properties within 1500 feet of the facility boundary lines would be overly burdensome as a rule. The Siting Board should evaluate vegetative buffer requirements on a case-by-case basis.

MAREC also supports the other changes requested in the Glover Creek petition:

- Clarification on what constitutes "material deviations" that need to be included in a final site layout plan submitted to the Siting Board. This is the first point raised in their petition.
- Removal of the requirement to schedule the tamping process near homes within 1500 feet of the project boundary lines at the end of the tamping process. This is part of the third point raised in their petition, which also includes the vegetation buffer requirement noted above for properties within 1500 feet of facility boundary lines.
- Clarification that any requirement to fix or pay for damaged roads resulting from vehicle transport to the site will be in accordance with applicable transportation permits obtained from the State and local road authorities. This is the fifth point raised in their petition.

MAREC also seeks clarification on a decommissioning issue not raised by Glover Creek, specifically, what constitutes a "complete reclamation to original or superior state" of the property where a project is sited.

Thank you for considering these requests, we look forward to receiving the Siting Board's response.

Sincerely,

Evan L. Vaughan
Deputy Director
Mid-Atlantic Renewable Energy Coalition
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