

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

In the Matter of:

ELECTRONIC APPLICATION OF GLOVER)	
CREEK SOLAR, LLC FOR A CONSTRUCTION)	
CERTIFICATE TO CONSTRUCT AN)	
APPROXIMATELY 55 MEGAWATT)	CASE NO.
MERCHANT ELECTRIC SOLAR)	2020-00043
GENERATING FACILITY IN METCALFE)	
COUNTY, KENTUCKY PURSUANT TO)	
KRS 278.700 AND 807 KAR 5:110)	

ORDER

The matter is before the Siting Board upon a petition filed by Glover Creek Solar, LLC (Glover Creek) requesting reconsideration and clarification of certain mitigation requirements imposed by the September 23, 2020 Order (Final Order). On March 27, 2020, Glover Creek filed an application requesting a Certificate of Construction to construct a 55-megawatt alternating current (MWac) solar photovoltaic electric generating facility to be located in Summer Shade, Metcalfe County, Kentucky. The Final Order conditionally authorized Glover Creek a Certificate of Construction to construct the proposed solar facility subject to Glover Creek complying with the mitigation requirements that were discussed in the Final Order and set forth in Appendix A to the Final Order. Glover Creek states that it “has reviewed the Siting Board’s proposed mitigation measures in detail, and the majority of the measures are acceptable to Glover Creek”¹ and that the instant “[p]etition is designed to seek changes and clarifications to a small

¹ Petition at 3.

group of mitigation measures that will inhibit the ability for solar to be developed in Kentucky, including the ability of the [Glover Creek solar project] to move forward.”²

By way of context, Glover Creek states that the solar project is in the mid-development phase with the next steps being procurement and contracting, financing, and power offtake.³ Glover Creek also states that each step of the development process will be heavily scrutinized for risk by potential counterparties, including the Siting Board issuance of a construction certificate.⁴ Glover Creek further states that its goal during this process is to reduce risk and ambiguity in order to put together a financing and construction bid package for the project that is without as much risk and straightforward as possible.⁵ Glover Creek points out that constructing and operating projects, negotiating offtake agreements, and obtaining financing are all more difficult if there are regulatory conditions that are unusual for the industry, that are challenging for compliance based on the nature of the project, or that are ambiguous in a way that creates uncertainty for how to comply with the condition.⁶ Accordingly, Glover Creek requests the Siting Board to reconsider and clarify the following mitigation measures that were set forth in the Final Order.

1. Final Site Layout Plan. Ordering paragraphs 2 and 4 of the Final Order required the following with respect to the final site layout plan:

2. Upon its completion, a final site layout plan shall be submitted to the Siting Board. Material deviations from the

² *Id.*

³ Petition at 2.

⁴ *Id.*

⁵ *Id.*

⁶ Petition at 2-3.

preliminary site layout plan which formed the basis for the instant review shall be clearly indicated on the revised graphic. Those material changes might include substantive changes in the location of solar panels, transformer, inverters, panel motors, substation, or other project facilities or infrastructure.

4. The Siting Board shall determine whether any deviation in the boundaries or site development plan is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required, but if that is the case, Glover Creek shall support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

Glover Creek requests clarification with respect to the statement that "material changes" in the final site layout plan would "include substantive changes in the location of solar panels, transformer, inverters, panel motors, substation, or other project facilities or infrastructure." Glover Creek seeks clarification that "substantive changes" should encompass those changes to the preliminary site plan that would negatively impact the surroundings of the facility, such as an increase in the footprint, a decrease in the setback distances, a change in the location of vegetative buffers, increased noise levels above those indicated in the application or reduced buffering, increase in the height of the infrastructure, and alteration in the type of equipment used at the facility that would increase noise or negatively impact the surroundings. Glover Creek states that its proposed interpretation is consistent with its response to the Harvey Economics' report which recommended this measure. Glover Creek also proposed the following revisions to ordering paragraphs 2 and 4 (strikethrough represents deletion and underline represents addition):

2. Upon its completion, a final site layout plan shall be submitted to the Siting Board. Material deviations from the preliminary site layout plan which formed the basis for the instant review shall be clearly indicated on the revised

~~graphic. Those material changes might include substantive changes in the location of solar panels, transformer, inverters, panel motors, substation, or other project facilities or infrastructure. Changes from the preliminary site development plan will be considered material deviations if they are changes to the footprint, buffering, setbacks, height, noise, and equipment that result in a negative impact to neighboring properties in comparison to the preliminary site development plan.~~

4. The Siting Board shall determine whether any deviation in the boundaries or site development plan is likely to create a materially different pattern or magnitude of negative impacts to neighboring properties. If not, no further action is required, but if that is the case, Glover Creek shall support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

The Siting Board finds that Glover Creek's request for reconsideration and clarification of ordering paragraphs 2 and 4 should be granted so that further discovery on this particular mitigation measure can be conducted to clarify the intent of the mitigation measure regarding the final site layout plan and to determine the reasonableness of the revisions to ordering paragraphs 2 and 4 as proposed by Glover Creek.

2. Vegetative Buffers. Ordering paragraph 7 required the following with respect to vegetative buffers:

7. Where there are potential visual or noise impacts created by the solar facility, Glover Creek shall plant a 15-foot wide vegetative buffer consisting of two staggered rows of evergreen shrubs. The evergreen shrubs shall be either mature at the time of planting of at least six feet in height, or if Glover Creek elects to plant non-mature evergreen shrubs of at least 3 feet at the time of planting, Glover Creek shall also include additional temporary buffers that would immediately help to mitigate any potential noise and visual impacts until the evergreen shrubs have grown to maturity.

With respect to the initial clause, which requires the planting of a vegetative buffer where there are potential visual or noise impacts created by the solar facility, Glover

Creek submits that this requirement leaves room for ambiguity with respect to the location of the vegetative buffer. Glover Creek interprets the requirement to require a 15-foot-wide vegetative buffer in the locations marked on the preliminary site plan filed in this matter by Glover Creek. Because the site layout, including the buffer locations, was reviewed by the Siting Board, its consultant, and the community during the public comment process, Glover Creek requests confirmation that the locations in the site plan be approved and deemed to satisfy this mitigation measure.

Glover Creek also express concerns with respect to the requirement that mature evergreen shrubs should be used at the time of planting, or if nonmature evergreen shrubs are planted then additional temporary buffers should be installed to immediately help to mitigate any potential noise and visual impacts until the evergreen shrubs have grown to maturity. Glover Creek states that it did not have an opportunity to respond to this mitigation measure because it was not included within the Harvey Economics' report and, therefore, it did not have specific opportunity to comment on such a mitigation measure previously as allowed pursuant to KRS 278.708(6), which affords an applicant an opportunity to present evidence to the Siting Board regarding any mitigation measures.

Glover Creek asserts that the planting of mature evergreen shrubs will place unnecessary economic strain on the project as the cost of mature evergreen shrubs are significantly more than nonmature shrubs. Glover Creek also asserts that additional temporary buffers are unnecessary. Glover Creek attached a Noise Addendum to its petition, which showed that the loudest anticipated noise for the tamping process will be 95 decibels at the property line that is 100 feet from the nearest possible pile-driving location, and there are a limited number of residences located within close proximity to

the property lines. Glover Creek avers that the vast majority of the solar racking system will be installed further in the interior of the site further from the property boundaries, and the tamping process will occur over a limited period of time during construction.

Accordingly, Glover Creek requests that the requirement that Glover Creek should include additional temporary buffers to mitigate any potential noise and visual impacts until the evergreen shrubs have grown to maturity if Glover Creek elects to plant nonmature evergreen shrubs of at least three feet at the time of planting be eliminated. Alternatively, if this request is denied and additional temporary buffers is still required, Glover Creek requests that the Siting Board confirm that the vegetative buffer locations marked on the site plan are appropriate and identify which type of temporary buffers would be acceptable (e.g., canvas or install green slats on the chain link fence). Accordingly, Glover Creek requests the following revision of ordering paragraph 7:

7. Where there are ~~potential~~ anticipated visual or noise impacts created by the solar facility, Glover Creek shall plant a 15-foot wide vegetative buffer consisting of two staggered rows of evergreen shrubs in accordance with the vegetative buffer locations indicated on the preliminary site layout plan. ~~The evergreen shrubs shall be either mature at the time of planting of at least six feet in height, or if Glover Creek elects to plant non-mature evergreen shrubs of at least 3 feet at the time of planting, Glover Creek shall also include additional temporary buffers that would immediately help to mitigate any potential noise and visual impacts until the evergreen shrubs have grown to maturity.~~

The Siting Board finds that Glover Creek's requests for reconsideration and clarification of ordering paragraph 7 should be granted so that further discovery on this particular mitigation measure can be conducted to determine the additional cost of planting mature evergreen shrubs and to obtain additional information regarding the types

of temporary buffers that could be implemented along with the associated costs of those temporary buffer options.

3. Tamping Process. Ordering paragraph 8 sets forth the following mitigation measure with respect to the tamping of the racking system:

8. Glover Creek shall implement the modified vegetative buffers to those properties that are within 1,500 feet of the solar facilities' boundary lines before the tamping of the racking panels and Glover Creek shall schedule the tamping process at these nearby homes so that the tamping will occur at the end of the tamping process period.

Glover Creek states that this requirement was not included in the consultant's report, and therefore, it did not have an opportunity to comment on the measure. Glover Creek maintains that this requirement is vague and ambiguous as to the required location of the modified vegetative buffers. Glover Creek asserts that it is not clear how to apply a modified buffer to benefit properties that are 1,500 feet away, and what that means for the specific location of the proposed vegetative buffer. Similar to mitigation measure set forth in ordering paragraph 7, Glover Creek states that without clarification from the Siting Board, it is also unclear what process Glover Creek should follow to confirm whether its proposed vegetative buffer locations are deemed to satisfy this mitigation measure. Lastly, Glover Creek states that it is not clear why the tamping process close to nearby homes must be scheduled at the end of the tamping process. Glover Creek points out that residences within 1,500 feet are scattered along various portions of the project limits. Glover Creek contends that scheduling all of the tamping near residences within 1,500 feet at the end of the tamping process will be inefficient and likely to cause increased costs, delays, or other unintended consequences during construction with uncertain benefit to the community. Accordingly, Glover Creek requests elimination of the

requirement that it schedule tamping of select portions of the site on a certain schedule, so that tamping can be planned according to the most efficient schedule based on site conditions at the time of installation.

The Siting Board finds that Glover Creek's request for reconsideration and clarification of ordering paragraph 8 should be granted so that further discovery on this particular mitigation measure can be conducted to obtain additional information regarding Glover Creek's claim that the tamping process as required is inefficient and would lead to an increase in cost or delays without any benefits to those nearby residences.

4. Working Hours. Ordering paragraph 11 limits the time period for construction activities as follows:

11. Glover Creek's construction activity, process, and deliveries shall be limited to the hours of 8 a.m. and 6 p.m. Monday through Saturday.

Glover Creek states that it did not have an opportunity to comment on this mitigation measure as the Harvey Economics' report did not recommend any limitation on time of day for construction activities, process, or deliveries. Glover Creek asserts that this requirement is unusual for the solar industry and places a substantial restriction on Glover Creek's ability to meet construction and operational deadlines. Glover Creek also asserts that this restriction could interfere with its interconnection agreements and agreements with end-users, which carry significant penalties for delay and missed milestone dates. Glover Creek further contends that its ability to respond to unanticipated delays caused by weather, logistics, international events, or other events outside of Glover Creek's control would be restricted by this requirement. Glover Creek added that

the work hour limitations would likely lengthen the overall duration of construction activities.

Glover Creek expresses concern that the limitation for construction activity, process, and deliveries would severely impact the viability of all solar projects in Kentucky, including the Project. In addition, finishing the project in a timely manner will benefit the neighbors of the project by not unnecessarily prolonging construction activities. Accordingly, Glover Creek requests that this condition be amended as follows to be consistent with BBC Consultants' recommendation in Case No. 2020-00040,⁷ involving the Turkey Creek solar facility, that construction activities and deliveries be limited to the hours of 7 a.m. until 9 p.m. without limitation on the days of the week:

11. Glover Creek's construction activity, process, and deliveries shall be limited to the hours of 7 a.m. and 9 p.m. & ~~a.m. and 6 p.m. Monday through Saturday.~~

The Siting Board finds that Glover Creek's request for reconsideration of Ordering paragraph 11 should be granted so that further discovery on this particular mitigation measure can be conducted to obtain additional information regarding Glover Creek's claim that the work hours limitations will inhibit its ability to respond to unanticipated construction delays and that the restriction could interfere with interconnection and end-user agreements.

⁷ Case No. 2020-00040, *Electronic Application of Turkey Creek Solar, LLC for a Construction Certificate to Construct an Approximately 50 Megawatt Merchant Electric Solar Generating Facility in Garrard County, Kentucky Pursuant to KRS 278.700 and 807 KAR 5:110* (Ky. Siting Board Sept. 23, 2020).

5. Potential Damage to Roads. Ordering paragraph 17 requires Glover Creek to address damages to roadways caused by the construction process. Specifically, ordering paragraph 17 states as follows:

17. Glover Creek shall fix or pay for damage resulting from any vehicle transport to the project site.

Glover Creek states that it did not have an opportunity to comment on this measure as the measure was not recommended in the consultant's report. Glover Creek contends that it is unclear from this requirement how road damage will be assessed or allocated to Glover Creek and with which regulatory body Glover Creek should work to confirm compliance with this mitigation measure. Glover Creek avers that this uncertainty has the potential to add significant cost and risk to its construction and transport contracts. Glover Creek requests a clarification that this mitigation measure would require that Glover Creek fix or pay for damage resulting from any vehicle transport to the project site as may be required by the applicable transportation permits obtained from state and local road authorities because potential assessments associated with failing to comply with the permit requirements presumably encompass all concerns of the Kentucky Transportation Cabinet and other agencies regulating transportation. Accordingly, Glover Creek requests the following amendment to Ordering paragraph 17.

17. Glover Creek shall fix or pay for damage resulting from any vehicle transport to the project site in accordance with all applicable transportation permits obtained from State and local road authorities.

The Siting Board finds that Glover Creek's request for reconsideration of ordering paragraph 17 should be granted so that further discovery on this particular mitigation

measure can be conducted to obtain additional information regarding Glover Creek's proposed amendment to the language of ordering paragraph 17.

6. Ongoing Communication with Nearby Property Owners. Ordering paragraphs 19, 20, and 21 require that Glover Creek communicate with nearby property owners regarding potential construction and operational noise on site. The relevant ordering paragraphs provide as follows:

19. Glover Creek shall remain in contact with nearby residents to confirm that noise levels are not unduly high or annoying after the pounding and placement of the solar panel racking begins. Any noise generator that creates noise levels in excess of 120 dB shall be considered unduly high or annoying.

20. If noise levels during the construction period are unacceptable to nearby residents or landowners (i.e., noise levels greater than 120 dB), Glover Creek shall take such steps to mitigate the noise impact.

21. Glover Creek shall contact nearby residents to confirm that noise levels are not unduly high or annoying after operations begin. Any noise generator that creates noise levels in excess of 120 dB shall be considered unduly high or annoying.

Glover Creek states that it is concerned about the ambiguity of the measurement location for the 120 dB threshold. Glover Creek points out that it is unclear whether the requirements relate to noise where it is generated or where it is heard on a neighboring property (the receptor). Glover Creek maintains that if the standard is based on noise measured at the noise generator, it could severely impact the viability of solar projects in Kentucky. Glover Creek further maintains that it is more appropriate to have a standard based on the noise receptor and not the noise generator. Accordingly, Glover Creek requests confirmation that these three mitigation measures are focused on a potential

noise receptor on a neighboring property. Because the noise could impact neighboring properties at the property boundaries, Glover Creek also requests confirmation that only noise levels of 120 dB or greater at the project's external property boundaries would be considered unduly high or annoying. Glover Creek further requests ordering paragraphs 19, 20, and 21 be amended as follows:

19. Glover Creek shall remain in contact with nearby residents to confirm that noise levels are not unduly high or annoying after the pounding and placement of the solar panel racking begins. Noise levels from the project in excess of 120 dB at the project's external property boundaries shall be considered unduly high or annoying. ~~Any noise generator that creates noise levels in excess of 120 dB shall be considered unduly high or annoying.~~

20. If noise levels during the construction period are unacceptable to nearby residents or landowners (i.e., noise levels greater than 120 dB at the project's external property boundaries), Glover Creek shall take such steps to mitigate the noise impact.

21. Glover Creek shall contact nearby residents to confirm that noise levels are not unduly high or annoying after operations begin. Noise levels from the project in excess of 120 dB at the project's external property boundaries shall be considered unduly high or annoying. ~~Any noise generator that creates noise levels in excess of 120 dB shall be considered unduly high or annoying.~~

The Siting Board finds that Glover Creek's request for reconsideration and clarification of ordering paragraphs 19, 20, and 21 should be granted so that additional investigation can be conducted to determine the reasonableness of the proposed amendment to these three ordering paragraphs.

7. Setback for Inverters. Glover Creek asserts that in granting its request for a deviation from the applicable setback requirements, the Siting Board required inverters to be located at least 2,000 feet from the closest residence because the application

provided that the location of the inverters to be at least at such a distance. Glover Creek claims that any requirement that inverters be located no closer than 2,000 feet to the closest residence may threaten the viability of solar development projects in Kentucky. Glover Creek acknowledges that the information provided in its application and in the Noise and Traffic Assessment regarding the distance of the inverters to the nearest residence was imprecise. Glover Creek states that it clarified in responses to discovery requests that transformers would be co-located with inverters and 150 feet from the property lines, not 2,000 feet as indicated in the application. Glover Creek further states that it also filed a revised Noise and Traffic Assessment, which indicates that the noise produced by the inverters is 67.0 dBA, which is slightly above that of a typical person-to-person conversation (i.e., 60.0). The revised Noise and Traffic Assessment also indicates that central inverters may be located as close as 150 feet from the nearest noise receptor (i.e., single-family residences).

Glover Creek also relies on the Noise Addendum attached as Exhibit 1 to the petition regarding operational noise and the difference between central inverters and string inverters. Glover Creek explains that string inverters are installed at the end of rows of solar panels and, therefore, are located on the edges of the footprint, which for Glover Creek is at least 100 feet from the property boundary. Glover Creek further explains that because string inverters produce less noise compared to a central inverter, there would actually be a reduction in the amount of noise at the nearest noise receptor 100 feet away from a string inverter, compared to 150 feet away from a central inverter. Glover Creek states that both central and string inverters are commonly used in the solar industry, and Glover Creek seeks flexibility in the use of either type of inverter. Glover

Creek notes that this amendment is critical in order for Glover Creek to proceed towards financing and construction. Accordingly, Glover Creek requests that ordering paragraph 2 be revised as follows:

2. Glover Creek's motion for deviation from the 2,000 feet setback requirement is granted ~~except for the location of the inverters.~~ All solar infrastructure (including string inverters, if used) shall 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.

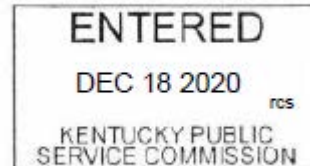
The Siting Board finds that Glover Creek's request for reconsideration of ordering paragraph 2 should be granted so that further discovery on the setback requirement of the inverters can be conducted to obtain additional information regarding Glover Creek's proposed amendment to the language of ordering paragraph 2.

IT IS THEREFORE ORDERED that:

1. Glover Creek's requests for reconsideration and clarification of the mitigation measures identified herein is granted for the purpose of conducting further investigation into those issues.

2. The procedural schedule set forth in the Appendix to this Order shall be followed.

By the Kentucky State Board on Electric
Generation and Transmission Siting



ATTEST:

A handwritten signature in blue ink that reads "Linda C. Bradwell". The signature is written in a cursive style and is positioned above a horizontal line.

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

Case No. 2020-00043

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE
NO. 2020-00043 DATED DEC 18 2020

First requests for information to Glover Creek
shall be filed no later than 01/04/2021

Glover Creek shall file responses to
first requests for information no later than 01/18/2021

Supplemental requests for information to Glover Creek
shall be filed no later than 02/01/2021

Glover Creek shall file responses to
supplemental requests for information no later than..... 02/15/2021

*Glover Creek Solar, LLC 400 West Main Street
Suite 503
Durham, NORTH CAROLINA 27701

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

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