

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

In the Matter of:

<i>Electronic</i> Application of Caldwell Solar,)	
LLC for Certificate of Construction for an up)	Case No.
to 200 Megawatt Merchant Electric Solar)	2020-00244
Generating Facility in Caldwell County,)	
Kentucky)	

Caldwell’s Response to Consultant’s Report

Caldwell Solar, LLC (“Caldwell”), by counsel, hereby responds to the final report of Harvey Economics (“HE”) dated January 21, 2022, and filed in the above referenced case.

Caldwell appreciates the work that went into and thoroughness of the HE report and supports its conclusions and recommended mitigation measures with minor clarifications. Caldwell respectfully responds to HE’s report, as follows:

I. Clarifications

Caldwell wants to provide certain clarifications to HE’s description of the Application and supporting documents. Regarding the summary of the Facility Description and Site Development Plan (Page II-1, Section 2) the HE report states: “Solar infrastructure will include over 541,750 solar panels, associated ground-mounted racking structures, 265 inverters, and overhead and underground electrical collection systems.” This description fails to recognize the above ground electrical collection systems. *See* Amended App. Exh. B, p. 6-8. Caldwell wants to ensure that the Siting Board has the complete description of the site plan during this certification process.

On Page II-1, Section 2, the HE report contains a description of proximity to homes and other structures. Caldwell wants to clarify that this description is based on preliminary design of

the project, and that final design will be presented to the Siting Board with the most updated information on proximity of these structures. Caldwell has committed to placing panels and inverters no closer to residences than 200 feet; the substation, no closer than 1000 feet. *See Appl. Exh. H, p. 8 (Table 2), Viewshed Protection item 2.*

Regarding the report's discussion that "The existing Big Rivers Electric Corporation 161-kV transmission line runs in an east-west direction through the northern portion of the Project site; the Project substation will connect to that transmission line" (Page II-2, Section 2). A minor clarification is that technically the Project substation connects to the switchyard, and the switchyard then connects to the transmission line. *See Response to 1 ESB 28(i).*

Regarding Decommissioning (Page II-6, Section 2), the report states that: "All above- and below-ground Project facilities will be removed from the Project site, unless the landowner requests that internal access roads or other structures remain on-site." The plan provided by Caldwell was not without limitation. On page 7 of the Application, Caldwell provides that any below-ground removal will be to a depth of three feet.

Regarding Caldwell's public outreach and communication (Page II-6, Section 2), the report asserts that the public meeting was not well attended, and that public awareness of the Project is limited. This statement is provided without citations. Caldwell disagrees and wants to clarify that multiple public meetings were provided regarding this project, and that twenty-seven people attended the meetings. Caldwell complied with all the necessary notice and public outreach activities required by the applicable statutes and regulations; furthermore, Caldwell went above and beyond to engage the community by holding more than one public meeting.

The report cites to Caldwell's SAR on Page III-1, Section 3, which mistakenly states that "Project facilities will include solar modules, inverters, tracking racking, fencing, access roads, a

Project substation and switchyard...” As shown in Amended Exhibit B to the Application, Caldwell is considering using fixed tilt racking or tracking racking. Caldwell needs to correct this statement by striking “tracking” from the description in the SAR to accurately reflect the Project plan of using either racking type. Caldwell will provide an updated SAR expeditiously with these corrections. A similar correction needs to be made in Construction Activities (Page III-3) where the report states “Peak construction activity is anticipated to occur during delivery and installation of the structural piles, trackers, modules and inverters and will last approximately six months.” “Trackers” should be struck from this sentence and replaced with “racking.” The discussion of Solar Panels on Page V-6 also mentions that, “On the tracking rack system, the panels would be approximately 15 to 20 feet in height from the ground to the top of the panel when at a 45 degree angle.” “Tracking” should be struck from this sentence as well to reflect the updated project language from Amended Exhibit B.

Finally, in the report Section 5 Description of Impacts regarding the project facilities (Page V-11), the HE report states that: “The overhead collection lines may be visible from nearby homes due to their 70 foot above-ground height.” While Caldwell initially provided this height in its response to 1 ESB 33, the correct height should be 90 feet. *See* Amended App. Exh. B, p. 7. Caldwell will supplement this Response expeditiously to correct this information.

II. Responses to Mitigation Recommendations

Caldwell provides the following responses to certain of HE’s Mitigation Recommendations (Pages VI-1 through VI-7, Section 6). Recommended language changes to mitigation measures are attached hereto, which achieve the same or similar objectives.

Site Development Plan Recommendations: (Section 6(A)(6)) “The Applicant or its contractor will control access to the site during construction and operation. All construction entrances will

be gated and locked when not in use” and (Section 6 (A)(8)) “According to National Electrical Safety Code regulations, the security fence must be installed prior to any electrical installation work. The substation will have its own separate security fence and locked access installed.”

Response: Caldwell requests that (A)(6) be modified. Caldwell will limit unauthorized access to the site during construction and will commit to gated and locked entrances after fencing is fully installed. Further, it is not clear that the National Electrical Safety Code requires security fence installation prior to any electrical installation work. Caldwell requests that (A)(8) be modified to reflect that it commits to following all applicable National Electric Safety Code regulations related to security fencing, while agreeing that the substation will have its own separate security fence and locked access installed. Caldwell further requests that if the NESC does require security fence installation prior to any electrical installation work, that this citation be provided.

Except as discussed above, Caldwell agrees to the other proposed mitigation measures contained in Section 6(A).

Scenic Surrounding Compatibility Recommendations: (Section 6(B)(3)) “The Applicant shall implement planting of native evergreen species as a visual buffer to mitigate viewshed impacts, particularly in areas directly adjacent to the Project without existing vegetation;” (Section 6(B)(4)) “The Applicant shall carry out visual screening consistent with the plans proposed in its Application, Site Assessment Report and Exhibits included as attachments to Caldwell Solar’s responses to Siting Board Data Requests, and ensure proposed new vegetative buffers are successfully established and develop as expected over time;” (Section 6(B)(5)) “Any changes to the vegetative buffering plan or site infrastructure layout (i.e., panels, inverters, etc.) included in the Application materials will be submitted to the Siting Board for review;” (Section 6(B)(6))

“The Applicant shall provide a visual buffer between Project infrastructure and residences or other occupied structures with a line of sight to the facility to the reasonable satisfaction of the affected adjacent property owners. If vegetation is used, plantings should reach eight feet high within four years;” (Section 6(B)(8)) “Landscape screening will extend and connect to existing site vegetation, if any, to help create a more natural transition between existing vegetation and Applicant developed vegetation;” and (Section 6(B)(11)) “The Applicant will immediately adjust solar panel operations upon any complaint about glare from those living, working, or traveling in proximity to the Project. Failing this, the Applicant will cease operations until the glare is rectified.”

Response: Certain of these proposed measures in Section 6(B) are contradictory. Caldwell’s Application, Site Assessment Report and Exhibits includes Caldwell’s commitment to a mix of evergreen and deciduous trees and shrubs for its visual barrier. Section 6(B)(4) reflects this commitment and is agreeable to Caldwell. However, subpart (3) contradicts the Application, Site Assessment Report and Exhibits because Caldwell never committed to native evergreen species, but rather to a mix of evergreen and deciduous trees and shrubs which is consistent with existing vegetation in the area of the project. Because these subparts are conflicting and do not reflect Caldwell’s commitment, HE’s proposed mitigation measure at Section 6(B)(3) should be removed as a recommendation for this certificate application. This contradiction is further reflected in Section 6(B)(6) requiring that plantings reach eight feet within four years. Within 5 years, the proposed trees are anticipated to reach a height of eight to eleven feet and the proposed shrubs are anticipated to reach seven feet. *See* Response to 1 ESB 72. Therefore, to address this contradiction, Caldwell proposes to revise this measure accordingly.

Section 6(B)(5)'s discussion of site infrastructure layout has already been addressed in (A)(1); this should be removed as redundant, and address only the vegetative buffer. Section 6(B)(6) should only apply to adjacent residences or other occupied structures, not any structure with a line of sight. Caldwell has worked hard with adjacent property owners to address any concerns about the buffer; this extraordinary requirement would cause a wasteful and undue burden on the project. Section 6(B)(8)'s requirement of landscape screening to extend and connect to existing site vegetation to help create a more natural transition between existing vegetation and Applicant-developed vegetation is too broad as this would require expensive screening around the entirety of the site. Instead, Caldwell proposes as a reasonable alternative that if a proposed buffer is adjacent to an existing buffer within thirty feet, then Caldwell will extend this for a smooth transition.

Finally, Caldwell has gone to great lengths to investigate impacts of possible glare and is using anti-glare panels and other steps to ensure that glare is minimized as much as possible. It would be unreasonable and extremely costly to completely stop operations any time a glare complaint is filed, without any evaluation of merit prior to doing so. If a complaint is filed, Caldwell will evaluate whether glare is actually occurring, and if there is, Caldwell will work to mitigate the problem to the extent possible. Caldwell therefore proposes to revise this measure accordingly.

Except as discussed above, Caldwell agrees to the other proposed mitigation measures contained in Section 6(B).

Property Value and Land Use Recommendations: These are contained in Section 6(C).

Response: Caldwell agrees to the proposed mitigation.

Noise Level Recommendations: (Section 6(D)(3)) “If pile driving activity occurs within 1,500 feet of a noise sensitive receptor, the Applicant shall implement a construction method that will suppress the noise generated during the pile driving process (i.e., semi-tractor and canvas method; sound blankets on fencing surrounding the Project site; or any other comparably effective method);” (Section 6(D)(4)) “The Applicant should limit the construction activity, process and deliveries to the hours of 8:00 am to 6:00 pm, Monday through Saturday. No construction work should be conducted on Sundays;” and (Section 6(D)(5)) “The Applicant shall not place a central inverter, and, if used, energy storage systems closer than 450 feet from a residence, church, or school.”

Response: Caldwell requests that Section 6(D)(3) be deleted entirely. The requirement to use sound blankets on fencing or another comparable method during pile driving could result in millions of dollars in additional construction costs, which threatens the project’s viability. This requirement will have negative impacts to crew productivity by forcing work to be done in a non-sequential fashion. Furthermore, the benefit of sound blanketing is uncertain and unproven. Instead, the terrain features, existing vegetation, and ambient conditions will impact the extent to which noise is perceived. Therefore, the noise mitigation measures proposed by Caldwell in its Application and following filings should be accepted without the additional requirements in this proposed mitigation measure, which should be deleted in full.

The limitations in Section 6(D)(4) will have a detrimental effect on the project and will increase construction cost by (1) requiring additional contractors to be employed to meet the project schedule; (2) extending the construction schedule based upon fewer working hours; or (3) some combination of both. To avoid these harmful effects, Caldwell proposes that these hours be extended as presented in its Application and responses to data requests, to 6am to 10pm.

However, Caldwell commits to limiting noise-producing activities from 7am to 7pm. Sundays would only be used as makeup days with activity limited from 7am to 7pm.

The condition in Section 6(D)(5) creates additional requirements that are inconsistent with Caldwell's noise study. This condition would force Caldwell to deviate from its approved site plan to relocate one inverter that otherwise complies with necessary requirements. Furthermore, Caldwell has provided evidence that relative noise level of an inverter at 450-feet versus 200-feet is immaterial when measured against ambient background noise and should be avoided here to prevent undue burden and expense to the project.

Except as discussed above, Caldwell agrees to the other proposed mitigation measures contained in Section 6(D).

Traffic Recommendations: (Section 6(E)(6)) "The Applicant should work with the Commonwealth road authorities and the CCRD to perform road surveys, before and after construction activities, on all roads to be used by construction vehicles."

Response: To ensure that the scope of any road survey is appropriately tailored to the issues at hand, Caldwell will prepare road surveys if so requested by the Commonwealth road authorities and the CCRD for any road that will be used by construction vehicles. Otherwise, the condition as written in Section 6(E)(6) is overly broad and creates undue burden and cost for Caldwell that is not justified by the statutes and regulations for approval of a certificate.

Except as discussed above, Caldwell agrees to the other proposed mitigation measures contained in Section 6(E).

Economic Impact Recommendations: Section 6(F)(1) “The Applicant should attempt to hire local workers and contractors to the extent they are qualified to perform the construction and operations work.”

Response: While Caldwell is generally agreeable to the proposed condition, there are concerns with the need for contractors to undergo the necessary bidding process utilized by Caldwell and its affiliates in selecting the best hire at competitive prices. Because of this, Caldwell requests that this condition include that the local workers and contractors be cost competitive.

Except as discussed above, Caldwell agrees to the other proposed mitigation measures contained in Section 6(F).

Decommissioning Recommendations: (Section 6(G)(1)) “This plan shall commit the Applicant to removing all facility components, above-ground and below-ground, regardless of depth, from the Project site;” (Section 6(G)(2)) “Decommissioning shall include the removal of all solar panels, racking, and equipment including concrete pads and trenched electrical wiring;” (Section 6(G)(4)) “The Applicant shall file a bond or other acceptable form of financial assurance with Caldwell County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan, naming Caldwell County as an obliged or a third-party (or secondary, in addition to individual landowners) beneficiary of that bond, so that Caldwell County will have the authority to draw upon the bond to effectuate the decommissioning plan as needed;” and (Section 6(G)(5)) “The bond or other acceptable form of financial assurance amount should be reviewed and updated every five years at the expense of the Applicant to determine and update the cost of facility removal.”

Response: A limit should be imposed to the depth of any removal for decommissioning here in subparts (1) and (2) due to the undue burden and expense otherwise caused. No conditions exist at this project site that would justify the proposed removal requirement. Furthermore, removal to a depth of three feet is an industry standard for decommissioning, and Caldwell's proposal to comply with this industry standard is well-founded in Caldwell's Application and supporting documents thereto. Other ESB cases in nearby Henderson and Webster Counties have approved decommissioning plans of a removal to a depth of three feet¹ and Caldwell requests the same in this case.

Additionally, Caldwell requests that the specific reference to a bond in subparts 4 and 5 be revised to reflect financial security in a form agreed upon with the county. For example, in subpart 4, Caldwell requests that this be changed to "The Applicant shall file a bond or other acceptable form of financial assurance with Caldwell County Fiscal Court." This would allow Caldwell to more effectively work with the county to provide the best form of financial security for both parties.

Except as discussed above, Caldwell agrees to the other proposed mitigation measures contained in Section 6(G).

Public Outreach Recommendations: (Section 6(H)(1)) "The Applicant should pursue additional public outreach and engagement activities within Caldwell County because of the

¹ In Ky. PSC Case No. 2020-00242 *Electronic Application of Unbridled Solar, LLC for Certificates of Construction for an Approximately 160 Megawatt Merchant Electric Solar Generating Facility and Nonregulated Electric Transmission Line in Henderson and Webster Counties, Kentucky*, decommissioning is limited to a depth of three feet. While Henderson County does have a local solar ordinance containing this limit, it shows the reasonableness and industry standard for limiting to a depth of three feet in the instant matter. Furthermore, portions of Unbridled Solar are in Webster County, which has no local solar ordinance requiring certain depths for removal during decommissioning, despite this, the Siting Board approved a removal depth for Webster County in compliance with Henderson County local ordinances (or to three feet). *Id.*, 6/4/21 Final Order, p. 30-1.

limited attendance at the local public meeting and the general sense of local unawareness of the Project.”

Response: Caldwell provided proof of its efforts to engage the local community in its Application, Exhibits and responses to data requests.² Caldwell disagrees that attendance was limited. For public outreach events of this nature, having 25 plus attendees shows robust engagement considering local population density in proximity to the project. Caldwell has provided the notice required of it by the applicable statutes and regulations, and additional activities would be unnecessary. While Caldwell will continue engaging with the community leading up to and during construction, and then during operation, Caldwell requests this recommended mitigation measure be recognized as complete and unnecessary as a condition for a construction certificate.

Complaint Resolution Program Recommendations: These are contained in Section 6(I).

Response: Caldwell agrees to the proposed mitigation.

III. Conclusion

Caldwell appreciates the opportunity to comment on HE’s Final Report to the Siting Board and agrees to the recommended mitigation measures as described above with requested revisions. Caldwell has attached hereto its revised recommended mitigation measures as described in Part II of this Response for review and approval by the Siting Board.

Respectfully submitted,

/s/ Jason R. Bentley

Jason R. Bentley
Katherine K. Yunker
Kathryn A. Eckert
McBrayer PLLC

² See App. Exh. C; see also Response to 1 ESB 76.

201 East Main St., Suite 900
Lexington, KY 40507
(859) 231-8780
jbentley@mmlk.com
kyunker@mcbayerfirm.com
keckert@mcbayerfirm.com
Counsel for Caldwell Solar, LLC

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Caldwell’s Proposed Revised Mitigation Measures from Section 6 of Consultant’s Report

Section 6(A)

6. The Applicant or its contractor will control access to the site during construction and operation. After the fence is fully installed, all construction entrances will be gated and locked when not in use.
8. The Applicant will follow all applicable National Electric Safety Code regulations related to security fencing. The substation will have its own separate security fence and locked access installed.

Section 6(B)

3. *Delete entirely.*
5. Any changes to the vegetative buffering plan included in the Application materials will be submitted to the Siting Board for review. If the Siting Board deems those changes to be significant, the Board may require the Applicant to further modify the buffering plan.
6. The Applicant shall provide a visual buffer between Project infrastructure and adjacent residences or other occupied structures as proposed in the vegetation screening plan. Trees should reach eight feet high within five years. Shrubs should reach seven feet high within 5 years. To the extent that an affected property owner indicates to the Applicant that a visual barrier or vegetative buffer is not necessary, Caldwell Solar will obtain that property owner’s written consent and submit such consent in writing to the Siting Board.
8. Landscape screening will extend and connect to existing site vegetation within 30 feet to help create a more natural transition between existing vegetation and Applicant developed vegetation.
11. The Applicant will use anti-glare panels and operate the panels in such a way that glare from the panels is minimized or eliminated.

Section 6(D)

3. *Delete entirely.*

4. The Applicant should limit the construction activity, process and deliveries to the hours of 6:00 am to 10:00 pm, Monday through Saturday. The Applicant should limit noise-producing construction activities to the hours of 7:00 am to 7:00 pm. The Applicant may use Sundays as make up days and should limit construction activity to the hours of 7:00 am to 7:00 pm.

5. The Applicant shall place panels, inverters and substation equipment consistent with the distances to noise receptors indicated in the Applicant's noise study and with the Applicant's proposed setbacks. Nevertheless, the Applicant shall not place solar panels or string inverters, if used, closer than 150 feet from a residence, church or school, 25 feet from non-participating adjoining parcels, and 50 feet from adjacent roadways. The Applicant shall not place a central inverter closer than 200 feet from a residence, church, or school. These setbacks shall not be required for residences owned by landowners involved in the Project that explicitly agree to lesser setbacks and have done so in writing. All agreements by participating landowners to lesser setbacks must be filed with the Siting Board prior to commencement of construction of the Project.

Section 6(E)

6. If requested by the KYTC or CCRD, the Applicant will perform road surveys, before and after construction activities, on any requested roads that will be used by construction vehicles.

Section 6(F)

1. The Applicant should attempt to hire local workers and contractors to the extent they are both qualified to perform the construction and operations work and are cost competitive.

Section 6(G)

1. The Applicant shall file a full and explicit decommissioning plan with the Siting Board or its successors as well as Caldwell County. This plan shall commit the Applicant to removing all facility components, above-ground and below-ground, to a depth of 3 feet, from the Project site. Internal roadways and other structures, such as the O&M building, shall also be removed unless the landowner states in writing that they prefer those to remain in place. The decommissioning plan shall be completed at least one month prior to construction of the Project.

2. The Applicant, its successors, or assigns shall decommission the entire site of the Project once it ceases producing electricity for a continuous period of 12 months. Decommissioning shall include the removal of all solar panels, racking, and equipment including concrete pads and trenched electrical wiring to a depth of 3 feet.

4. The Applicant shall file a bond or other acceptable form of financial assurance with Caldwell County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan, naming Caldwell County as an obliged or a third-party (or secondary, in addition to individual landowners) beneficiary of that bond, so that Caldwell County will have the authority to draw upon the bond to effectuate the decommissioning plan as needed. For land in which there is no bonding requirement otherwise, Caldwell County shall be the primary beneficiary of the decommissioning bond for that portion of the Project. The bond(s) shall be in place at the time of commencement of operation of the Project.

5. The bond or other acceptable form of financial assurance amount should be reviewed and updated every five years at the expense of the Applicant to determine and update the cost of facility removal. This review shall be conducted by an individual or firm with experience or expertise in the costs of removal or decommissioning of electric generating facilities. Certification of this review shall be provided to the Siting Board or its successors and the Caldwell County Fiscal Court. Such certification shall be by letter and shall include the current amount of the anticipated bond and any change in the costs of removal or decommissioning.

Section 6(H)

1. *Delete entirely.*