## COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING

IN THE MATTER OF:
THE ELECTRONIC APPLICATION OF HENDERSON COUNTY SOLAR LLC FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 50 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY IN HENDERSON COUNTY, KENTUCKY PURSUANT TO KRS 278.700, ET SEQ., AND 807 KAR 5:110

HENDERSON COUNTY SOLAR LLC'S RESPONSE TO SITING BOARD STAFF'S SECOND REQUEST FOR INFORMATION

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

IN THE MATTER OF:


## VERIFICATION OF CHRIS KILLENBERG



Chris Killenberg, Regional Development Director for Community Energy Solar, LLC on behalf of Henderson County Solar LLC, being duly sworn, states that he has supervised the preparation of certain responses to Requests for Information in the above-referenced case and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.


Chris Killenberg
The foregoing Verification was signed, acknowledged and sworn to before me this $\qquad$ day of September 2021, by Chris Killenberg.



Commission expiration: $\qquad$

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

IN THE MATTER OF:
$\begin{array}{ll}\text { THE ELECTRONIC APPLICATION OF HENDERSON } & \\ \text { COUNTY SOLAR LLC FOR A CERTIFICATE TO } & \\ \text { CONSTRUCT AN APPROXIMATELY 50 MEGAWATT } & \text { ) } \\ \text { MERCHANT SOLAR ELECTRIC GENERATING } & \text { CASE NO. } \\ \text { FACILITY IN HENDERSON COUNTY, KENTUCKY } & \text { ) } \\ \text { PURSUANT TO KRS 278.700, ET SEQ., } & \\ \text { AND } 807 \text { KAR 5:110 } & \text { ) }\end{array}$

## VERIFICATION OF MARTY MARCHATERRE

STATE OF KENTUCKY )
COUNTY OF FAYETE )

Marty Marchaterre, P.E., Senior Environmental Planner for Copperhead Environmental Consulting, Inc., on behalf of Henderson County Solar LLC, being duly sworn, states that he has supervised the preparation of certain responses to Requests for Information in the abovereferenced case and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.


The foregoing Verification was signed, acknowledged and sworn to before me this 22 day of September 2021, by Marty Marchaterre.


Commission expiration: $\qquad$

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

## IN THE MATTER OF:

THE ELECTRONIC APPLICATION OF HENDERSON ) COUNTY SOLAR LLD FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 50 MEGAWATT

CASE NO. MERCHANT SOLAR ELECTRIC GENERATING

2020-00391
FACILITY IN HENDERSON COUNTY, KENTUCKY PURSUANT TO KRS 278.700 , ET SEQ., )

```
AND 807 KAR 5:110
```


## VERIFICATION OF MICHAEL CLARK

COMMONWEALTH OF KENTUCKY )
COUNTY OF FAYETTE )
COUNTY OF FAYETTE )

Michael Clark, PhD., Director of the Center for Business and Economics Research, University of Kentucky on behalf of Henderson County Solar LLC, being duly sworn, states that he has supervised the preparation of certain responses to Requests for Information in the abovereferenced case and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.


The foregoing Verification was signed, acknowledged and sworn to before me this 21 day of September 2021, by Michael Clark.

JOHN HIGGINBOTHAM
Notary Public-State at Large KENTUCKY -Notary ID \# 598513 My Commission Expires 04-02-2022


Notary Commission Number: 598513
Commission expiration:
$4 / 2 / 22$

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

## IN THE MATTER OF:

| THE ELECTRONIC APPLICATION OF HENDERSON | ) |
| :--- | :--- |
| COUNTY SOLAR LLD FOR A CERTIFICATE TO | ) |
| CONSTRUCT AN APPROXIMATELY 50 MEGAWATT | ) |
| MERCHANT NO. |  |
| FACILITY IN HEAD ELECTRIC GENERATING | ) |
| PURSUANT TO RS 278.700 , ET SEQ., |  |
| AND 807 GAR $5: 110$ | ) |

## VERIFICATION OF TIMOTHY CHOATE

## COMMONWEALTH OF KENTUCKY )

COUNTY OF MCCracken )

Timothy B. Choate, PE, PLS, Transportation Engineer and Project Manager for Bacon, Farmer, Workman Engineering \& Testing, Inc., on behalf of Henderson County Solar LLC, being duly sworn, states that he has supervised the preparation of certain responses to Requests for Information in the above-referenced case and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.


The foregoing Verification was signed, acknowledged and sworn to before me this $\underline{21}^{\text {st }}$ day of September 2021, by Timothy B. Choate.


Item 1
Page 1 of 1
Witness: Chris Killenberg

# Henderson County Solar, LLC Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information 

1. Provide and explanation of why there is a six to nine month range for construction.

## Response:

A variety of conditions can affect the speed of construction, including weather, the availability of subcontractors and materials, and unexpected events. Typically, for a solar project of the proposed size (50MW), a construction period ranging from six to nine months is to be expected.

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
2. Refer to Henderson Solar's response to Item 20 of the Commission Staff's First Request for Information (Staff's First Request). Confirm that for construction activities, average and peak number of workers and average and peak construction vehicle data provided is correct whether construction occurs over six months or nine months.

## Response:

Regardless of the length of the construction period, the peak number of workers and the average and peak construction vehicles at any given time will not exceed 150 employee passenger vehicles, 5 heavy duty trucks, and 4 water trucks.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC <br> Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information

3. Provide the number of on-site construction workers by month.

## Response:

An approximate estimate of the number of on-site construction workers by month, assuming a 9-month construction period, is as follows:

| Month 1 | 50 workers |
| :--- | ---: |
| Month 2 | 100 workers |
| Month 3 | 150 workers |
| Month 4 | 150 workers |
| Month 5 | 150 workers |
| Month 6 | 150 workers |
| Month 7 | 150 workers |
| Month 8 | 100 workers |
| Month 9 | 50 workers |

# Henderson County Solar, LLC <br> Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information 

4. Refer to Henderson Solar's response to Item 23(d) of Staff's First Request. Confirm that the worker parking will be located on-site and will be separate from the staging areas.

## Response:

Applicant hereby confirms that the worker parking will be located on-site and will be separate from (though perhaps co-located with) the staging areas.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
5. Explain whether the worker parking area or parking areas will also be bare ground, logging mats, or compacted gravel.

## Response:

The preparation of worker parking areas will be determined closer to the start of construction, based on the final locations of those areas, the soil conditions at those locations, time of year, anticipated weather, etc. Applicant proposes to utilize any options including bare ground, logging mats, or compacted gravel that fulfill Applicant's obligations to the applicable lease and meet Applicant's responsibilities under any applicable local, state, or federal regulations.

# Henderson County Solar, LLC <br> Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information 

6. Refer to the Application, Volume 1, Exhibit 12, Attachment 12.3. Provide a map of the leased parcels included in the project site that is consistent with the legal boundary description provided in the Henderson Solar SAR.

## Response:

Please see 'Henderson County Solar_draft ALTA surveys_9-20-21’ attached as pages 2-8 of this response.








# Henderson County Solar, LLC Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information 

7. Provide the distance between the Rolling Hills Equestrian Center and the closest portion of the central project section.

## Response:

The distance between the closest property line of the Rolling Hills Equestrian Center and the closest leased area of the central section of the proposed project is 3,526 feet.

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Page 1 of 3
Witness: Chris Killenberg

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
8. Refer to the Application, Volume 1, Exhibit 2, and Exhibit 2 Attachment.
a. Provide an explanation of why the residential structures located along Lover's Lane are not included in the list of residential neighborhoods within a two-mile radius of the project. Provide a revised map, if necessary.
b. State whether any nursing homes or hospital are located within the two-mile radius of any of the project boundaries. If so, describe their location, list their distance from the project boundary, and identify those locations on a revised map.
c. For the four churches located within the two-mile radius of the project boundaries, provide the location, list the distance from the project boundary, and identify the locations on a revised map.

## Response:

a. The cluster of residential structures located along Lover's Lane is not included in the list of residential neighborhoods within a two-mile radius of the project because it does not meet the definition of "residential neighborhood" as provided in KRS 278.700(6), which reads:
"Residential neighborhood" means a populated area of five (5) or more acres containing at least one (1) residential structure per acre;"

Of the seven (7) residential structures clustered along the south end of Lover's Lane, five (5) are located on parcels in excess of one (1) acre in size, with the aggregate acreage of the cluster totaling 10.24 acres.
b. No nursing homes or hospital are located within the two-mile radius of any of the project boundaries.
c. There are seven (7) churches located within the two-mile radius of the project boundaries, whose locations and distance from the project boundary are as follows:

1. Apostolic Bread of Life Church

5872 Hwy 425, Henderson, KY 42420
1905 ft
2. Walnut Hill Baptist Church

5879 US Hwy 41A, Henderson, KY 42420
2240 ft
3. Landmark Missionary Baptist Church

7923 US Hwy 41A, Henderson, KY 42420
2940 ft
4. Green Valley Baptist Association

2470 S. Green St., Henderson, KY 42420-000
2950 ft
5. Church of Jesus Christ of Latter-day Saints in Henderson

2405 S. Green St., Henderson, KY 42420-4620
3290 ft
6. Haven Pentacostal Church

425 Kresge Dr., Henderson, KY 42420-000
5780 ft
7. Countryview Baptist Church

2071 Gregory Dr., Henderson, KY 42420-0000
9320 ft

Please see 'Henderson Project Site_2 mile radius map_UPDATE 9-17-21' attached as page 3 of this response.


## (. COMMUNITY ENERGY ${ }^{\circ}$

## COMMUNITY ENERGY SOLAR, LLC

3 RADNOR CORP CENTER, SUITE 300
100 MATSONFORD RD. RADNOR, PA 19087
(866) 946-3123

HENDERSON COUNTY SOLAR - 50MW SOLAR PROJECT HENDERSON COUNTY, KY

| $\sim$ | HENDERSON, KY |
| :--- | :--- |
|  | LAT: 37.79N LONG: -87.63 W |
|  | DATE: 9.17 .2021 |
|  |  |

MAP SHOWING THE DISTANCE OF THE PROPOSED PROJECT SITE FROM RESIDENTIAL NEIGHBORHOODS, SCHOOLS, PUBLIC AND PRIVATE PARKS, CEMETERIES, AND CHURCHES THAT ARE LOCATED WITHIN A TWO (2) MILE RADIUS OF THE PROPOSED FACILITY

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
9. Refer to the Application, Volume 1, Exhibit 2 Attachment, and Henderson Solar's response to Item 25(d) of Staff's First Request.
a. Explain why the response table includes nine residential structures between 300 and 600 feet of the central and southern sections of the project boundary, but the map identifies neighborhood number 7 as being within 203 feet of the central section. Provide a revised map or revised table as applicable.

## Response:

The table provided in the Applicant's response to Item 25(d) of Staff's First Request identifies nine residential structures located between 300 and 600 feet of the central and southern sections of the project boundary. The map provided in the Application, Volume 1, Exhibit 2 identifies the distance to residential neighborhoods, measured from the project boundary to the nearest parcel line of the neighborhood.

Of the thirteen residential structures in neighborhood number 7, six residential structures are located between 300 and 600 feet of the central section of the project boundary. Three other residential structures at other locations are located between 300 and 600 feet of the central and southern sections of the project boundary. In total, nine residential structures are located between 300 and 600 feet of the central and southern sections of the project boundary.

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Page 1 of 1
Witness: Tim Choate

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
10. Refer to Henderson Solar's response to Item 33(c) of Staff's First Request and the Application, Volume 1, Exhibit 12, Attachment 12.7, page 5 of 21 of the Traffic Study.
a. Clarify [whether] the traffic on US 41A South generated by the project is 7 vehicles or 17 vehicles.
b. Clarify that vehicle traffic reflects an average day or a peak day.
c. Clarify that vehicle traffic includes both worker commuter vehicles and delivery trucks.

## Response:

a. The 7 vehicles is correct. The number (17) on page 5 indicates the calendar year (2017) that the traffic was counted by the Kentucky Transportation Cabinet, Department of Highways.
b. Vehicle traffic reflects a peak day.
c. The peak period vehicle count of 150 is employee vehicles only. The 4 water trucks and/or the 5 heavy duty delivery trucks are not anticipated to operate during the peak hour traffic periods of the day (AM/PM employee passenger vehicle arrivals/departures).

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Page 1 of 3
Witness: Chris Killenberg

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
11. Refer to Henderson Solar's response to Item 33(d) of Staff's First Request and to the Application, Volume 1, Exhibit 12, Attachment 12.7, Section 2.6 on page 18 of 21 of the Traffic Study.
a. Clarify that vehicles, including heavy trucks, would access the northern section via an entrance on Lover's Lane, which would require crossing an existing bridge over Canoe Creek.
b. If so, explain how deliver trucks with "an estimated maximum gross weight of 40 tons each" will be able to utilize the bridge over Canoe Creek given its 18 -ton weight limit.
c. Provide the number of delivery trucks that will access the northern section using the bridge over Canoe Creek during an average day and during a peak day.
d. Provide more detail about the types of activities required for "pavement surfacing stabilization and/or widening" of the portion of Lover's Lane with the "sharp existing horizontal curve situated near the bridge end."
e. Advise of the duration of the pavement surfacing stabilization for widening of Lover's Lane in that area.
f. Advise of whether work to "repair and restore" the curve will occur before or after project construction.
g. Provide the expected duration of the work to "repair and restore" the curve.

## Response:

a. Yes; vehicles, including heavy trucks, would access the northern section of the proposed project site via an entrance on Lover's Lane, which would require crossing the existing bridge over Canoe Creek.
b. All delivery trucks accessing the northern section of the proposed project site via an entrance on Lover's Lane will observe the weight limit of the bridge over Canoe Creek. This may include a class of tractor/trailer capable of having an estimated maximum gross weight of 40 tons that is carrying a partial payload in order to meet the weight restrictions of the bridge. c. During the peak month of construction, an estimated 15 full truckloads of materials will need to be delivered to the northern section of the proposed project site. Given the weight limitations of the bridge over Canoe Creek, these materials will be delivered in partial loads each less than half a full load. Therefore, during the peak month of construction, an estimated 45 partial truckloads of materials will need to be delivered to the northern section of the proposed project site - roughly 10 partial loads per week. Assuming that some days are busier than others, the number of delivery trucks that will access the northern section using the bridge over Canoe Creek during a peak day is projected to be 3-4 trucks.

The number of partially-loaded delivery trucks that will access the northern section using the bridge over Canoe Creek during an average day is projected to be 1 truck.
d. The portion of Lover's Lane proceeding from the westerly side of the bridge over Canoe Creek features a sharp turn to the left immediately after exiting the bridge. It is anticipated that an additional 3 feet of pavement/stabilization and widening along each side of Lover's Lane will be required, for a distance of approximately 75 feet from the bridge, to accommodate the turning radius of delivery trucks.
e. Construction of the widening will take approximately 2 workdays. The widening will remain in place after construction.

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Page 3 of 3
Witness: Chris Killenberg
f. Work to "repair and restore" the curve may occur both before and after project construction, as necessary. The Applicant is willing to pay for any directly-related upgrades to the road before construction and any directly-related repairs to the road during and after construction.
g. The work to "repair and restore" the curve may take place at any time during the construction period.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information

12. Describe the delivery route for the project's substation transformer.

## Response:

The delivery route for the project's substation transformer will most likely be via US
41A, Collier Road, and Lover's Lane.

# Item 13 <br> Page 1 of 1 <br> Witness: Chris Killenberg 

## Henderson County Solar, LLC <br> Case No. 2020-00390 <br> Siting Board Staff's Second Request for Information

13. State the number of trucks required for the delivery of the substation transformer.

## Response:

The number of trucks required for the delivery of the substation transformer is estimated to be 1 truck.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information

14. State the weight of each truck required for the delivery of the substation transformer.

## Response:

The weight of the truck required for the delivery of the substation transformer is unknown at this time.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
15. Provide whether the trucks used to deliver the substation transformer will utilize the bridge over Canoe Creek, given the bridge's 18 -ton weight limit. If this is the case, explain how the bridge over Canoe Creek will be used given its weight limit.

## Response:

The Applicant acknowledges that the gross weight of a standard substation transformer, delivered on a standard flatbed tractor-trailer, would exceed the 18 -ton weight limit of the bridge over Canoe Creek. A number of alternative options will be explored, including:

- Selecting an alternate transformer of sufficiently low weight
- Shipping the transformer empty of any cooling fluids
- Utilizing multiple smaller transformers instead of a single transformer
- Delivering the transformer by rail, on the adjacent CSX rail line
- Relocating the project substation to the POI location

The Applicant intends to seek a solution to this challenge that avoids overloading or reconstructing the bridge over Canoe Creek.

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Page 1 of 1
Witness: Tim Choate

## Henderson County Solar, LLC

 Case No. 2020-00391Siting Board Staff's Second Request for Information
16. Refer to Henderson Solar's response to Item 33(g) of Staff's First Request.
a. The response states that traffic stoppages will be "minimal." Define the term "minimal."
b. Identify the specific roadways and intersections that may experience traffic stoppages.
c. Describe the anticipated daily traffic stoppages on each of the roadways identified above in terms of number of times and average duration.

## Response:

a. The stoppages are not anticipated to exceed 2 minutes.
b. The specific roadways that may experience traffic stoppages are the site entrances situated on Wilson Station Road, Old Henderson-Corydon Road, and Lover's Lane. No intersections are expected to experience traffic stoppages.
c. Each site entrance may experience 1 or 2 stoppages each day, for a duration not to exceed 2 minutes.

## Henderson County Solar, LLC <br> Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information

17. Refer to the Application, Volume 1, Exhibit 12, Attachment 12.7, Traffic Study.
a. Provide a table which estimates the number of commuter vehicles, the number of delivery trucks, and the number of water trucks accessing each site entrance on an average day.
b. Provide a table which estimates the number of commuter vehicles, the number of delivery trucks, and the number of water trucks accessing each site entrance on a peak day.
c. Provide the anticipated time of day in which the morning traffic peak will occur.
d. Provide the anticipated time of day in which the afternoon traffic peak will occur.

## Response:

| a. | Site Entrance / Average Day | Commuter <br> Vehicles | Delivery <br> Trucks | Water <br> Trucks |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
|  | Wilson Station Road via US 41A South | 74 |  | 2 | 1 |
|  | KY 425 west entrance | 19 |  | 1 | 1 |
|  | KY 425 east entrance | 19 |  | 1 | 1 |
|  | Lover's Lane via US 41A North | 38 |  | 1 | 1 |
|  |  |  |  |  |  |
| b. | Site Entrance / Peak Day | $\underline{7 e h i c l e s ~}$ |  | Delivery | Water |
|  | Wilson Station Road via US 41A South | 74 |  | 2 | $\underline{1}$ |
|  | KY 425 west entrance | 19 | 1 | 1 |  |
|  | KY 425 east entrance | 19 | 1 | 1 |  |
|  | Lover's Lane via US 41A North | 38 | 1 | 1 |  |

Note: For planning purposes, "Peak Days" and "Average Days" are the same.
c. The anticipated time of day in which the morning traffic peak will occur is $6: 45 \mathrm{am}$.
d. The anticipated time of day in which the afternoon traffic peak will occur is $4: 15 \mathrm{pm}$.

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Page 1 of 1
Witness: Tim Choate

## Henderson County Solar, LLC <br> Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information

18. Refer to the Application, Volume 1, Exhibit 12, Attachment 12.7, Section 2.3, on page 9 of 21 of the Traffic Study. Explain the reference to Exhibit 2.3-1, and the information provided in the Exhibit 2.3-1.

## Response:

Exhibit 2.3-1 is a location map depicting the access points into the proposed project site. The access points have been assigned numbers to correspond with figures 1 thru 13 which contain photos looking in each direction of the respective access points. The photos depict adequate vehicular sight distance for the proposed access points.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC <br> Case No. 2020-00391 <br> Siting Board Staff's Second Request for Information

19. Refer to Henderson Solar's response to Item 41(i) of Staff's First Request. Describe in more detail the "minor amount of construction" that would take place after 6:00 p.m.

## Response:

In the response to Item 41(i) of Staff's First Request, the Applicant's statement that "only a minor amount of construction will take place after 6 pm " was made in the context of the Applicant's proposal to limit construction to the hours of 7 am CT to 7 pm CT, Monday through Saturday. The intention was to point out that only one hour of construction activities would take place after $6 \mathrm{pm}-$ a relatively short duration.

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Page 1 of 2
Witness: Marty Marchaterre

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
20. Refer to Henderson Solar's responses to Item 19(a) and Item 41(g) and 41(h) of Staff's First Request.
a. Provide whether pile-driving and excavation activities will occur in close proximity to each other.
b. If pile driving and excavation activities will occur in close proximity to each other, provide the cumulative noise impacts of those activities to nearby residents.
c. Provide the cumulative noise effects of the backhoe operations of the electrical install, the piledriving work, and the excavation activities for nearby residents.

## Response:

a. Pile driving (for racking installation) and excavation activities (for internal roads) are components of two separate construction processes. However, it is possible that these two activities may occasionally occur in close proximity to each other.
b. Sound levels associated with pile driving (racking installation) will be generated by specialty pile drivers (e.g. Vermeer Pile Driver - PD 10). Sound levels associated with excavation activities (for internal roads) will be generated by bulldozers and dump trucks. If these two activities occur in close proximity to each other, the cumulative sound levels, including a conservative ambient sound level ( 55 dBA ), would be as follows:

| Activity | Distance (Feet) | Cumulative Sound Level (dBA) |
| :--- | :---: | :---: |
| Pile Driving + Excavation | 250 | 75.15 |
|  | 750 | 65.61 |

Note: The distance between the closest residential structure and any pile driving location (and therefore any pile driving + excavation location) is approximately 250 feet. All pile driving activities within 750 feet of any residential structure (and therefore any pile driving +

Item 20
Page 2 of 2
Witness: Marty Marchaterre
excavation activites) will be restricted to Monday-Friday, $9 \mathrm{am}-5 \mathrm{pm}$, under the proposed "Neighbor Zone" plan.
c. Sound levels associated with pile driving (racking installation) will be generated by specialty pile drivers (e.g. Vermeer Pile Driver - PD 10). Sound levels associated with excavation activities (for internal roads) will be generated by bulldozers and dump trucks. Sound levels associated with trenching (installation of underground electrical cables) will be generated by backhoes. If these three activities occur in close proximity to each other, the cumulative sound levels, including a conservative ambient sound level ( 55 dBA ), would be as follows:

Activity
Pile Driving + Excavation

+ Electrical Installation

Distance (Feet) 250
750

Cumulative Sound Level (dBA) 75.65
66.11

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Page 1 of 1
Witness: Marty Marchaterre

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
21. Refer to the Application, Volume 1, Exhibit 12, Attachment 12.7, Section 2.6 of the Traffic Study. Estimate the range of noise levels associated with the "pavement surfacing stabilization and/or widening" of that portion of Lover's Lane with the "sharp existing horizontal curve situated near the bridge end."

## Response:

Sound levels associated with the "pavement surfacing stabilization and/or widening" of the portion of Lover's Lane with the "sharp existing horizontal curve situated near the bridge end" would likely be generated by a front-end loader and a dump truck. The cumulative sound level, including a conservative ambient sound level ( 55 dBA ), would be 71.48 dBA at a distance of 250 feet - the distance to the nearest residential structure. This sound level will occur only for a short period of time when construction activities are at their closest.

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Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
22. Refer to Henderson Solar's response to Item 42 of Staff's First Request. Provide the number of residential structures located within 300-foot intervals from any inverter for each project section.

## Response:

Because of the substantial time and resources necessary to map then calculate all residential structures within multiple 300 -foot intervals of the 17 inverters located within the project, Applicant respectfully refers to its response previously provided to Item 42 of Staff's First Request for Information. That response definitively answers the question of whether the proximity of any inverters to any adjacent residential structures represents a noise nuisance. In that response the Applicant indicates that the closest residential structure to any inverter is in the range of 600-900 feet. Per the mitigation measure proposed by the Applicant in Application Exhibit 12, the minimum distance between the closest residential structure and any inverter will be 750 feet. This distance was determined to be the distance at which any sound from the inverter will have attenuated to 40.6 dBA - below the ambient noise level.

Item 23
Page 1 of 1
Witness: Chris Killenberg

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
23. Refer to Henderson Solar's response to Item 43 of Staff's First Request. Provide the number of nonresidential structures located within 300 -foot intervals from any inverter for each project section.

## Response:

Because of the substantial time and resources necessary to map then calculate all nonresidential structures within multiple 300 -foot intervals of the 17 inverters located within the project, Applicant respectfully refers to its response previously provided to Item 43 of Staff's First Request for Information. That response definitively answers the question of whether the proximity of any inverters to any adjacent nonresidential structures represents a noise nuisance. In that response Applicant indicates that the closest nonresidential structure to any inverter is in the range of 1500-1800 feet. At this distance, the sound from any inverter will have attenuated to a level well below the ambient noise level.

## Henderson County Solar, LLC

Case No. 2020-00391
Siting Board Staff's Second Request for Information
24. Refer to Henderson Solar's response to Item 56 of Staff's First Request. Explain how it was determined that vegetative buffers were required for specific locations along the northern section of the project.

## Response:

The section of the Henderson County Solar Ordinance pertaining to vegetative buffers
reads:

> "d. All Level 3 SES shall be screened with a seven (7) foot tall fence and, to the extent reasonably practicable, a visual buffer that provides reasonable screening to reduce the view of the SES from residential dwelling units on adjacent lots (including those lots located across a public right of way). A vegetation screening plan to reduce the view of the SES from residential dwelling units on adjacent lots will be submitted for approval of the Henderson CityCounty Planning Commission. The existing natural tree growth and natural land forms along the SES perimeter may create a sufficient buffer and shall be preserved when reasonably practicable. When no alternative vegetation screening plan is approved by the Henderson City-County Planning Commission, a double row of staggered evergreen trees will be planted 15' on center from adjacent non participating residential dwellings including the outdoor living space immediately near residential dwellings. Parcel boundaries with no proximity to residential dwellings shall not require screening. The proposed evergreen trees shall be placed on the exterior of security fencing. The use of barbed wire or sharp pointed fences shall be prohibited in or along any boundary adjoining residential properties.

The initial vegetative buffer plan for the Northern Section of the proposed project site was to retain the existing natural tree growth between the facility and adjacent lots, and fill in any gaps with a double row of staggered evergreen trees planted $15^{\prime}$ on center. In response to

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Page 2 of 2
Witness: Chris Killenberg
concerns expressed by a neighbor residing on Collier Road, an additional 275-foot long double row of staggered evergreen trees was added to the northern border of the facility. This additional vegetative screening was included in the Site Plan that was approved by the Henderson City-County Planning Commission.

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## Henderson County Solar, LLC

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25. Refer to Henderson Solar's response to Item 57 of Staff's First Request, which states that "residential dwellings on adjacent lots to the Central and Southern sections of the Proposed Project site are not in close proximity to the Project site."
a. Explain that statement in relation to the Application, Volume 1, Exhibit 2 Attachment, which lists a mobile home park (neighborhood number 7) as 203 feet from the Central section boundary.
b. Explain that statement in relation to the Exhibit 2, which lists several residences as within 800 feet from the Southern section boundary.
c. Refer to Henderson Solar's response to Item 58 of Staff's First Request. Explain how "a visual buffer that provide reasonable screening to reduce the views of the SES" was determined without factoring in elevation.
d. Refer to Henderson Solar's response to Item 62 of Staff's First Request, which states that a Glare Study is underway. Provide when the study will be completed and submitted to the Siting Board for review.

## Response:

a. In the Application, Volume 1, Exhibit 2 Attachment, the distance of 203 feet is measured from the closest lease line of the Central Section of the project site to the closest parcel line of neighborhood number 7. The Applicant's response to Item 57 of Staff's First Request, which states that "residential dwellings on adjacent lots to the Central and Southern sections of the Proposed Project site are not in close proximity to the Project site," was meant to refer to the distance between the closest solar panel and the closest residential structure. In the case of the Central Section/neighborhood number 7, that distance is approximately 625 feet.

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b. Please see the response to question (a) above.
c. The Applicant's response to Item 58 of Staff's First Request references the Site Plan that was presented to the Henderson City-County Planning Commission (the "Commission"). In that Site Plan, the Applicant's proposal to meet the requirements of the Henderson County Solar Ordinance for "a visual buffer that provides reasonable screening to reduce the view of the SES from residential dwelling units on adjacent lots" included a mix of new plantings, retaining existing tree growth, and enhancing setback distances. This Site Plan was approved by the Commission.
d. The Glare Study is anticipated to be completed and submitted to the Siting Board by September 30, 2021.

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26. Refer to Henderson Solar's response to Item 74 of Staff's First Request.
a. Explain whether the Construction Certificate refers to the Siting Board process for which this Application is currently being reviewed.
b. Provide a detailed description of the Highway Encroachment Permit, indicating the state agency involved, any specific permit numbers or types, and the specific purpose for that permit.
c. Provide a detailed description of the purpose of the Building/Construction Permit. Explain whether this refers to the county approved solar site plan.
d. Provide whether a Spill Protection, Control, and Countermeasures (SPCC) plan will be required from the EPA.

## Response:

a. Yes; the Construction Certificate listed as one of the "State Permits" refers to the result of this Siting Board review process.
b. The Applicant will need to obtain two types of Encroachment Permits from the Kentucky Transportation Cabinet for encroachment on KY Hwy 425 (the "Henderson Bypass"). One type of permit will be for a 'Commercial Entrance' to the proposed project site to provide for the two access points along Hwy 425. The other type of permit will be for a 'New Underground Utility Crossing' for the medium-voltage feeder connecting the Southern and Central sections of the project site to the project collection substation.
c. The Building/Construction Permits will be issued by the Henderson County Building Inspector, and will include a 'Commercial Electrical Permit' and a compliance review of the approved Site Plan.
d. A Spill Protection, Control, and Countermeasures (SPCC) plan may be required from the EPA. The threshold trigger for the SPCC plan requirement is exceeding a total of 1,320 gallons of oil on site. The definition of oil is broad and includes diesel fuel, gasoline, and mineral oils.

During the Construction Phase, a SPCC plan would be required if total aggregate of aboveground oil storage for fueling of construction vehicles/equipment exceeds 1,320 gallons (either in aboveground storage tanks or fuel trucks). If so, the development of a SPCC plan is often a contractual requirement that the general contractor manages.

During Operation Phase, the 1,320 gallon threshold applies to an aggregate/total of oilfilled equipment onsite and other aboveground storage. The Applicant does not anticipate having any aboveground oil storage tanks used during the Operation Phase. For oil-filled equipment, only equipment with more than a 55 -gallon capacity are included in the total. The transformers and inverters installed for the proposed facility may have mineral oil. The amount will vary depending on actual equipment used. There may also be some storage on site for used fluids, including hydraulic fluid, oils, and grease (probably a 55 -gallon drum at maximum).

During either the Construction Phase or the Operation Phase, if the amounts of oil (broadly defined) onsite trigger the requirement for an SPCC plan, the Applicant intends to fully comply with the related regulations.

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27. Refer to Application, Volume 1, Exhibit 10, Attachment 10.1, and Henderson Solar's response to Item 7(c) of Staff's First Request.
a. Confirm whether the statement "approximately $20 \%$ of the labor will consist of specialty workers who come from outside the area" represents approximately 30 additional workers to the 150 -worker estimate provided in the CBER Report.
b. Confirm that the wages and benefits associated with those 30 workers are in addition to those stated in the CBER Report.
c. Refer to Application, Volume 1, Exhibit 10, Attachment 10.1. Confirm that the estimates of Occupational License taxes collected by Henderson County during construction (provided in Table 2) and operations (provided in Table 4) only account for wages related to the project and do not account for the wages generated by additional indirect and induced workers.
d. Provide the total Occupational License taxes that will be collected by Henderson County during construction and annually during operations, accounting for total labor income generated by the project.
e. Provide the net Occupational License taxes collected by Henderson County during construction and annually during operations.
f. Provide the net employment in Henderson County during operations, accounting for the reduction in the local agricultural workforce.

## Response:

a. The expectation is that approximately $20 \%$ of the total 150 Construction Phase jobs would be filled by specialty workers who are not available in the local labor markets. These workers are included in the estimate of 150 jobs and do not represent additional workers.
b. The income for those 30 workers is included in the labor income estimates shown in Table 1.
c. The estimates of the additional taxes shown in Tables 2 and 4 include income generated from the direct, indirect, and induced impacts on employment and income. For example, Table 1 shows that the Construction Phase would increase Henderson County's labor income by $\$ 6.7$ million including the direct, indirect, and induce effects. With a $1 \%$ occupational license tax, we estimate that Henderson County would collect approximately $\$ 67,640$ in occupational license tax revenue from the Construction Phase as shown in Table 2.
d. The Construction Phase is expected to generate approximately $\$ 67,640$ in occupational license taxes collected by Henderson County (see Table 2). The Operation Phase is expected to generate approximately $\$ 2,250$ to $\$ 3,710$ in occupational license taxes per year (see Table 3).
e. The figures shown in Tables 2 and 4 reflect the net change in occupational license taxes.
f. Farm employment is counted differently than non-farm employment as these jobs are often migratory, part-time, and seasonal. We estimate that farm employment will decrease by 2.8 jobs. Because of the differences in accounting for these jobs, comparing the difference as a net change in employment could be misleading. A better comparison would be to examine the change in labor income, which reflects differences in the hours worked. We estimate that labor income during the Operation Phase will be $\$ 310,000$ to $\$ 456,000$ per year. This will be partially offset by a reduction of $\$ 85,000$ per year in labor income due to reduced agricultural production. The net impact is a gain of $\$ 225,000$ to $\$ 371,000$ per year.

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## Henderson County Solar, LLC

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28. Refer to Henderson Solar's response to Item 72 of Staff's Fist Request. Provide in detail the process and timing for resolving complaints related to construction activities and project operations.

## Response:

A detailed process for resolving complaints related to construction activities and project operations has not been formulated at this time. Input from the construction general contractor and the operations and maintenance contractor would be required. Applicant anticipates that a reasonable complaint resolution process will be put into place before commencement of construction activities and project operations.

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## Henderson County Solar, LLC

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29. Given that the Unbridled Solar project has recently been approved in the vicinity of the proposed Henderson Solar project:
a. Provide the potential cumulative effects during construction (i.e., traffic and noise) if both projects go forward.
b. Provide the potential cumulative effects during operations (i.e., traffic and noise) if both projects go forward.
c. Provide details on Henderson Solar's analysis of the potential cumulative effects if both Henderson Solar and the Unbridled Solar project are under construction at the same time.

## Response:

a. The Unbridled Solar project is planned for a site at the southern end of Henderson County, approximately 13 driving miles from the proposed Henderson Solar project site. No cumulative effects during construction on traffic or noise are expected, if both projects go forward.
b. No cumulative effects during operations on traffic or noise are expected, if both projects go forward.
c. Due to the significant distance between the two projects, the Applicant asserts that no analysis of the potential cumulative effects if both the Henderson Solar and the Unbridled Solar projects are under construction at the same time is required.

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30. Provide whether you would consider coordinating project development activities with the Unbridled Solar project or future solar projects in the vicinity.

## Response:

The Applicant asserts that coordinating project development activities with the Unbridled Solar project is not necessary. Coordinating project development activities with any future solar projects in the vicinity will be evaluated if such a scenario should arise.

