

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION
AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF HENDERSON)	
COUNTY SOLAR LLC FOR A CERTIFICATE OF)	
CONSTRUCTION FOR AN APPROXIMATELY 50)	CASE NO.
MEGAWATT MERCHANT ELECTRIC SOLAR)	2020-00391
GENERATING FACILITY IN HENDERSON)	
COUNTY, KENTUCKY PURSUANT TO KRS)	
278.700 AND 807 KAR 5:110)	

ORDER

On June 25, 2021, Henderson County Solar LLC (Henderson County Solar) filed an application with the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board) seeking a Construction Certificate to construct an approximately 50-megawatt ground mounted solar photovoltaic electric generating facility (Project) comprising approximately 541 acres of land in Henderson County, Kentucky, located immediately southwest of the city of Henderson, Kentucky.

There are no intervenors in this matter. Pursuant to a procedural schedule established on July 22, 2021, Henderson County Solar responded to two rounds of discovery. A site visit was held on September 15, 2021. Siting Board consultant Harvey Economics (Harvey) filed its report on October 8, 2021 (Harvey Report). Henderson County Solar submitted its response to the Harvey Report on October 15, 2021. A formal hearing was held on October 25, 2021. Henderson County Solar filed its responses to post-hearing requests for information on November 9, 2021. The matter now stands submitted for a decision.

LEGAL STANDARD

The filing requirements and standard of review for requests to construct a merchant generating facility are set forth in KRS 278.700–.718. KRS 278.704(1) requires that an application be filed with and approved by the Siting Board before the construction of a merchant electric generating facility can commence. KRS 278.706 requires that the application include evidence of public notice and compliance with local planning and zoning ordinances.

KRS 278.708(2) requires Henderson County Solar to prepare a site assessment report (SAR) that includes: (1) a detailed description of the proposed site; (2) an evaluation of the compatibility of the facility with scenic surroundings; (3) potential changes in property values and land use resulting from the siting, construction, and operation of the proposed facility for property owners adjacent to the site; (4) evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary; (5) the impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the vicinity of the facility; and (6) any mitigating measures to be suggested by Henderson County Solar to minimize or avoid adverse effects identified in the SAR.

KRS 278.710(1) delineates the criteria on which the Siting Board will grant or deny the certificate, which include (1) impact on scenic surroundings, property values, and surrounding roads; (2) anticipated noise levels during construction and operation of the facility; (3) economic impact on the region and state; (4) whether the proposed facility meets all local planning and zoning requirements existing on the date the application was

filed; (5) impact of the additional load on the reliability of jurisdictional utilities; (6) setback requirements; (7) efficacy of mitigation measures proposed by an applicant; and (8) whether applicant has a good environmental compliance history.

PROPOSED FACILITY

The Project will be located on 541 acres over three locations and includes approximately 130,000 photovoltaic solar panels, associated ground-mounted racking, 72 inverters, and a main transformer that will connect to the 69 kV bus at Substation No. 7 owned by Henderson Municipal Power & Light (HMP&L). The power generated by the facility will be sold to HMP&L under a 20-year power purchase agreement.¹

DISCUSSION AND FINDINGS

I. KRS 278.708: SAR Filing Requirements and Mitigation Measures

Mitigation Measures Proposed by Henderson County Solar and Siting Board Consultant

As required by KRS 278.708(4), Henderson County Solar proposed various mitigation measures consistent with the statutes regarding traffic, noise, roadway preservation, permitting, setbacks, public safety, scenic preservation, and decommissioning.

In accordance with KRS 278.708(5), Harvey recommended mitigation measures in the following areas: site development plan; compatibility with scenic surroundings; potential changes to property value and land use; peak and average noise levels; road and rail traffic, dust, and road degradation; economic impacts; decommissioning; public outreach and communication; and complaint resolution.² A majority of the mitigation

¹ Application at 2.

² Harvey Report at VI-2–VI-8.

measures recommended by the Harvey Report are consistent with the proposed mitigation measures proposed by Henderson County Solar.

Henderson County Solar disagreed with certain recommendations of the Harvey Report's proposed mitigation measures. The Harvey Report recommended that the security fence be installed prior to any electrical installation work.³ Henderson County Solar proposed that the security fence be installed prior to any energization of electrical equipment because it would not be practicable or necessary for public safety during initial construction.⁴ Henderson County Solar disagreed with the Harvey Report's interpretation of the Henderson County visual buffers requirements, but noted it will follow Henderson County's local ordinances regarding visual buffers.⁵ Henderson County Solar disagreed with the Harvey Report's recommendation about ceasing all work when there is a complaint about glare, but did acknowledge it would work swiftly to move the panel and resolve the problem.⁶ Henderson County Solar asserted there was no benefit in additional noise mitigation in the Neighbor Zone and proposed to use the standard noise mitigation in the Neighbor Zone.⁷ Henderson County Solar agreed that road stabilization is needed on Lover's Lane, but stated it will work with the Henderson County Road Department (HCRD) to determine the exact steps to prevent road

³ Harvey Report at VI-3.

⁴ Henderson County Solar's Response to Harvey Report at 5.

⁵ *Id.* at 7-8.

⁶ *Id.* at 11.

⁷ *Id.* at 13.

degradation in that area.⁸ Henderson County Solar generally disagrees with the Harvey Report's assertion that there has not been community outreach.⁹

The Siting Board has reviewed the mitigation measures proposed by Henderson County Solar and Harvey, and finds that, in addition to those Henderson County Solar has initially proposed, the mitigation measures set forth in Appendix A, and discussed throughout this Order, are appropriate and reasonable because they achieve the statutory purpose of mitigating the adverse effects identified in the site assessment report and its consultant's report in accordance with KRS 278.708.

Detailed Site Description

KRS 278.708 (3)(a)(1-6) requires that the detailed site description in the SAR include a description of (1) surrounding land uses for residential, commercial, agricultural, and recreational purposes; (2) the legal boundaries of the proposed site; (3) proposed access control to the site; (4) the location of facility buildings, transmission lines, and other structures (5) location and use of access ways, internal roads, and railways; and (6) existing or proposed utilities to service the facility.

Henderson County Solar prepared and submitted the required SAR as Exhibit 12 of the application. A multi-page Site Plan detailing various sections of the proposed Project and location to neighborhoods, churches, schools, and other facilities was provided.¹⁰ Included is the "Site Plan Overview," which is attached to this Order as Appendix B. The SAR was reviewed and evaluated by Harvey. Harvey stated that

⁸ *Id.* at 20.

⁹ *Id.* at 25–26.

¹⁰ Application, Exhibit 12, Attachment 12.1.

Henderson County Solar has generally complied with the legislative requirements for describing the facility and a site development plan, including the location of buildings, transmission lines, and other structures, as required by KRS 278.708.¹¹

The site is now chiefly rural agricultural land, with 57 percent agricultural.¹² The agricultural land includes many productive fields and thick trees and existing vegetation in some areas. Twenty-eight percent of the area is mixed residential/agricultural land and 15 percent is residential.¹³ There are four adjacent commercial uses: a substation, a cell tower, the offices of Kenergy (a regional electric cooperative), and a driving range. There is one church adjacent to the site.¹⁴ Overall it is estimated that there are a total of 125 residences, 30 commercial structures, and a church within 1,200 feet of the Project boundary line.¹⁵

The Project is composed of three discrete sections, the Northern, Central, and Southern sections. The Northern section of the site is located along Lover's Lane, just outside the city limits of Henderson, Kentucky. The Central section of the site is located along Hwy 425/Henderson Bypass, Henderson, Kentucky. The Southern section of the site is located along Wilson Station Road, Henderson, Kentucky. The sections of the Project site will be electrically connected by underground medium-voltage cables.¹⁶

¹¹ Harvey Report at 11-2.

¹² Kirkland Appraisals, LLC Report, Application Exhibit 12, Attachment 12.6 at 3.

¹³ *Id.*; Harvey Report at II-1.

¹⁴ SAR at unnumbered page 209.

¹⁵ Harvey Report at V-13.

¹⁶ Application, Exhibit 2 at 10, and SAR, Exhibit 12 at 208.

Henderson County Solar secured the Project site under long-term leases and utility easements.¹⁷ Adequate legal descriptions of the boundaries of the proposed site are provided and mapped in the Record.¹⁸

Location and use of access ways are set forth in the Application. Multiple entrance points will allow access to the three Project sections during construction and operations. Chain link fencing, a minimum of seven feet in height that complies with the Henderson County Solar Zoning Ordinance (Solar Ordinance),¹⁹ will enclose the facility during construction and operation. All portions of the substation fence will meet National Electric Safety Code (NESC) regulations.²⁰ Other security measures will be in place for access control.²¹

The Project will require a minor amount of electricity during operation for starting equipment, providing communications and security, and for general back-up power. The proposed Project site is located within the retail service territory of Kenergy. No water or wastewater services will be required during construction or operations.

Having reviewed the record of this proceeding, the Siting Board finds that Henderson County Solar has complied with the requirements for describing the facility and a site development plan, as required by KRS 278.708. However, the Siting Board finds it necessary to impose certain mitigation measures and requirements

¹⁷ Application, Exhibit 12, and SAR at unnumbered 208.

¹⁸ Application, Exhibit 12, Attachment 12.3 at 1-13.

¹⁹ Henderson County Zoning Ordinance Number 19-07, Article XXX. Solar Energy Systems. Approved December 2019.

²⁰ Harvey Report at III-9.

²¹ *Id.*

related to the description of the facility and the proposed site development plan. Specifically, the Siting Board will require that Henderson County Solar keep the Siting Board apprised of changes throughout the development of the Project, and as such will order it to provide the final site plan before the commencement of construction. The final site plan should clearly indicate and highlight any change, including those to the design and boundaries of the Project from the proposed site plan provided to the Siting Board during the pendency of this matter. Additionally, based on the concerns and proposals of the Harvey Report, the Siting Board further finds that the mitigation measures outlined in Appendix A to this Order, and in particular, mitigation measures 1 through 3 shall be adhered to.

Compatibility with Scenic Surroundings

As discussed above, the existing uses and surrounding community are agricultural with a mix of other uses. The chief impact on view will be from the solar panels. In one section, along Lovers Lane, there is little existing vegetation. Henderson County Solar proposed planting vegetation buffers. In the two other sections there is substantial vegetative buffering already present to protect the viewshed, and the residences are farther away.²² Anti-glare panels will be used. Henderson County Solar stated that there is no evidence based upon its studies that glare from the Project will cause an adverse impact for drivers, or for the airport.²³

Harvey noted that the extent of visual impact will be reduced due to all these

²² Harvey Report at II-3.

²³ Henderson County Solar's Supplemental Response to Siting Board Staff's First Request For Information (filed Nov. 15, 2021), Item 62, Glare Analysis for Proposed Henderson County Solar LLC Project, Copperhead Environmental Consulting, Inc., Dated Nov. 8, 2021, at 6.

factors.²⁴ It also noted that solar farms are considered to be less visually intrusive than many industrial or wind based energy facilities, as they are relatively short, and can be effectively visually blocked naturally with topographic variation or intervening vegetation, or through man-made efforts.²⁵

A section of the Solar Ordinance pertaining to vegetative buffers requires screening with a fence and, to the extent reasonably practicable, a visual buffer to provide screening from adjacent residences.²⁶ Further requirements in the Solar Ordinance, and mitigation measures for visual buffering made in this record by Henderson County Solar, will provide for preservation of existing buffers and newly planted ones. The Siting Board finds that for the Project to be compatible with its surroundings, the Siting Board will require mitigation measures in addition to those proposed by Henderson County Solar and required by local ordinance. Those are set forth in Appendix A to this Order, and in particular, mitigation measures 9 to 13 and shall be adhered to.

Impact on Property Values

With respect to impact on property values, Henderson County submitted a Property Value Impact Study from a certified real estate appraiser Kirkland Appraisals, LLC, (Kirkland Report) that opined, based upon a comparative analysis, the solar facility will have no negative impact on the property values of abutting or adjacent residential or

²⁴ Harvey Report at 11-3.

²⁵ *Id.* at V-2.

²⁶ Henderson County Solar's Response to Siting Board Staff's Second Request for Information (filed Sept. 24, 2021), Item 24 at 1-2.

agricultural properties.²⁷ The Kirkland Report indicated that the solar facility would function in a harmonious manner with the nearby surroundings, and that operation of the solar facility would not generate the level of noise, odor, or traffic impacts to negatively impact the nearby surroundings as compared to a fossil fuel generating facility or other industrial facility.²⁸

Harvey initially evaluated the impacts to property values by reviewing relevant existing literature related to solar facility impacts, and prepared further analysis of the data provided in the Kirkland Report. Harvey referred to literature that indicates that in areas of high population density, houses within one-mile depreciate by about 1.7 percent following construction of a solar array, but that the effect in rural areas was stated to be effectively zero.²⁹ Related other sources were reviewed that agreed with that opinion.³⁰ Additional materials reviewed by Harvey included several independent appraisal reports related to property value impacts for solar companies.

Harvey also examined the data provided in the matched pair sets from the Kirkland Report to determine the likelihood of a positive impact, negative impact, or no impact. Harvey states that the majority of matched pair comparisons resulted in no sales price difference or an increase in sales price due to adjacency to the solar facility property.³¹

²⁷ Kirkland Report, Application Exhibit 12, Attachment 12.6 at 2.

²⁸ *Id.*, Application Exhibit 12, Attachment 12.6 at 116.

²⁹ Harvey Report at V-15 referring to Gaur, V., and C. Lang. Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island. University of Rhode Island, Department of Environmental and Natural Resource Economics, September 2020.

³⁰ *Id.*, at V-16 referring to Coffey, Darren. Planning for Utility-Scale Solar Energy Facilities. American Planning Association, PAS Memo, September – October 2019 and Al-Hamoodah, Leila, et al. An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations. Policy Research Project, LBJ School of Public Affairs, The University of Texas at Austin, May 2018.

³¹ *Id.* at V-17.

Harvey also interviewed the Henderson County Judge Executive and the Henderson County Property Valuation Administrator (PVA).³² Harvey relayed that the PVA did not believe the presence or operation of Henderson County Solar Project would have any substantial impact on property values in the area. ³³

All of this research led Harvey to state that the effect on property values would be minimal given the facts of this application.³⁴

Having reviewed the record, the Siting Board finds that there is sufficient evidence to conclude that the proposed Henderson County facility will more than likely not have any adverse impact on nearby property values so long as Henderson County Solar complies with the Solar Ordinance, follows the mitigation measures proposed by Henderson County Solar, and adheres to the further mitigation measures which the Siting Board orders, Appendix A to this Order, and in particular, mitigation measures 4 through 8 and 29 through 34.

As noted earlier, the characteristics of the solar facility's operations are passive in nature in that it does not produce any air, noise, waste, or water pollution, nor does it create any traffic issues during operations.

Anticipated Noise Level

Evaluation of noise during construction and operation has been extensive. Henderson County Solar indicates that the bulk of noise issues would arise during

³² *Id.*

³³ *Id.*

³⁴ *Id.* at V-20.

construction.³⁵ According to Henderson County Solar's SAR, the ambient sound levels currently are in the range of 45 to 55 dBA, which is typical for an agricultural, rural residential and undeveloped area.³⁶ There are two residences that will be within 300 feet of a solar panel, with the nearest residence at approximately 242 feet.³⁷

The loudest source from construction is anticipated to be pile driving equipment. The anticipated noise produced by pile driving equipment will be 71.25 dBA at the nearest residence 217 feet away.³⁸ The maximum anticipated sound level impact for any residence during construction will be approximately 85 dBA due to pile driving activity.³⁹ Henderson Solar proposed to lessen the impact of construction activity by limiting pile driving activity to 9 a.m. through 5 p.m. when within 1,000 feet of a non-participating residence or business and to require that no heavy construction activity occur prior to noon on Sundays.⁴⁰ In addition, Henderson County Solar proposed "a special 'Kenergy Zone' within which pile driving will be restricted to Saturdays only, from 8 a.m. to 6 p.m. local time. The Kenergy Zone will be defined as all Project areas within 750 feet of the nearest corner of the Kenergy Corporation building at 6402 Old Henderson-Corydon Rd., Henderson, Kentucky 42419."⁴¹

³⁵ Copperhead Environmental Consulting Acoustical Analysis Dated June 23, 2021 (Copperhead), Application, Exhibit 12, Attachment 12.5, Acoustical Analysis, at 11.

³⁶ Copperhead, Application, Exhibit 12, Attachment 12.5, at 6.

³⁷ *Id.* at 1.

³⁸ Harvey Report at V-23. Exhibit 5-7.

³⁹ Henderson County Solar's Response to Siting Board's First Request for Information (filed Aug. 7, 2021), Item 5.

⁴⁰ *Id.*, Item 14.

⁴¹ Henderson County Solar's Response Siting Board Staff's Post-Hearing Request for Information (filed Nov. 9, 2021), Item 1.

When the solar facility is operating, there will be noise associated with the inverters, transformer and tracking motors that rotate the solar panels to track the arc of the sun. Henderson County Solar asserted that would be minimal to negligible during operation.⁴²

The Harvey Report agreed that noise issues stem from construction activities and operational components of the solar facility. During construction, noise will include graders, bulldozers, dump trucks, pile drivers and other equipment.⁴³ Harvey stated that the anticipated noise from construction will be annoying to surrounding residents for short periods, particularly for residences that are within 300 feet of the Northern section of the Project. The noise from operational components will only add a modest increase, if any, to the local sound environment, other than one particular residence, and will only occur during daylight hours.⁴⁴

Henderson County Solar's response to the Harvey Report disagreed with the proposed mitigation measure to require Henderson Solar to implement construction methods in the Neighbor Zones to suppress sound. Henderson County Solar argued that such construction methods are not logistically practical, commercially reasonable, nor materially effective.⁴⁵

The Siting Board finds noise from construction will be intermittent and temporary, and, as noted by both Henderson County Solar and Harvey, that construction noise will

⁴² Application, Exhibit I2, SAR at pdf 215.

⁴³ Harvey Report at V-21.

⁴⁴ *Id.* at V-28.

⁴⁵ Henderson County Solar's Response to Harvey Report, Section D. at 14.

be loudest during the pile driving portion of the construction process. Accordingly, the construction noise will not be permanently impactful to nearby residences, while the operational noise from the Project components should have little effect on nearby residents. Nevertheless, the impact of construction noise on nearby residents will be significant, albeit transitory.

The Siting Board finds that Henderson County Solar's application is in compliance with statutory requirements in its disclosure of noise levels. However, the Siting Board finds, based on the entire Record, to ensure the impact of construction noise does not unduly impact nearby residents, Henderson County Solar is ordered to implement certain mitigation measures. These are designed to limit the impact of construction noise by controlling the hours of construction in general, as well as the time and manner in which pile driving activities can occur. Further, the Siting Board will mandate that noise suppression measures be utilized by Henderson County Solar during the pile driving process, similar to those required by other recent Applicants for construction certificates. Henderson County Solar can forego using noise suppression measures if it employs a panel installation method that does not use pile driving, so long as that method does not create noise levels similar to pile driving. These mitigation measures are outlined in Appendix A to this Order, and in particular, mitigation measures 15 through 17.

Impact on Roads, Railways, and Fugitive Dust

Construction is anticipated to take between six to nine months and that will include commuting workers, as well as delivery of heavy loads and equipment.⁴⁶ There are five

⁴⁶ Harvey Report at V-29.

roads in Henderson County that can access the Project Site.⁴⁷ The Northern section of the Project Site can be accessed via Lover's Lane near the intersection with Collier Road. The Southern section of the Project can be accessed via Wilson Station Road near the intersection with US Highway 41A.⁴⁸ The Central section of the Project can be accessed in three different ways: (1) south side of Highway 425/Henderson Bypass, one mile west of the intersection with Highway 41A; (2) south side of Highway 425/Henderson Bypass near the intersection with Old Corydon Road; (3) the east side of Old Corydon Road near the intersection with the Highway 425/Henderson Bypass.⁴⁹

There is a bridge with unposted weight limits on Lovers Lane, which the HCRD believes is an 18-ton capacity bridge. In addition in that area the curves and width of the road will require stabilizing and possibly widening the pavement as well as ample new signage. Henderson County Solar indicates it will make certain that all contractors are aware of these limitations in that area of the Project, and will complete such work as is necessary for access there.⁵⁰

Henderson County Solar indicated that during construction of the facility traffic is expected to increase with morning and evening peaks for workers and deliveries being made. Henderson County Solar stated that all necessary safety precautions will be taken to ensure collisions are prevented on the on the surrounding roads.⁵¹ Henderson County

⁴⁷ Application at 212.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ Bacon, Farmer, Workman Engineering and Testing, Inc Traffic Study Report (Traffic Study) Dated May 14, 2021, Application, Exhibit 12, Attachment 12.7 at 18.

⁵¹ Application at 219.

Solar will encourage ride sharing and minimize road stoppages where possible.⁵² Parking areas, internal roads, and staging areas will be created and surfaced with gravel to minimize erosion.⁵³ It is anticipated that local traffic will be able to access the roads at an acceptable level during construction.⁵⁴ Impact will be the greatest in the Northern section of the Project.⁵⁵

Construction of the facility is not expected to have a long term significant impact on roadways.⁵⁶ Henderson County Solar agreed that “[a]ny impact to the existing local roads or bridge due to construction of the facility will be repaired at the expense of the solar farm.”⁵⁷ Thereafter, during operation, there will be not be a significant impact on the roadways or traffic.⁵⁸

A CSX railway runs through the proposed site. Henderson County Solar in its Application stated it does not plan to utilize the railway and no vehicles will have to cross the railway during construction because the areas of the proposed site can be reached via public roadways. Henderson County Solar will obtain a crossing agreement with CSX to install an underground power line perpendicular to the railway.⁵⁹ The Siting Board finds there is no impact on railways. However, should Henderson County Solar consider

⁵² Harvey Report at V-33.

⁵³ Traffic Study at 19 and Harvey Report at V-30.

⁵⁴ Traffic Study at 19.

⁵⁵ Harvey Report at V-33.

⁵⁶ Traffic Study at 18.

⁵⁷ *Id.*, Exhibit 12, Attachment 12.7 at 18.

⁵⁸ Application at 219.

⁵⁹ *Id.* at 212 and Harvey Report at V-29

railways as an option for the delivery of the substation transformer, as has been indicated by it subsequently, then it should provide further information to the Siting Board as to any impact and any safeguards.

The Siting Board anticipates some fugitive dust from the construction phase. Henderson County Solar stated, that given the rural character of the site, fugitive dust will be a minor issue.⁶⁰ However, Henderson County Solar agreed to take measure to reduce fugitive dust, particularly covering open-bodied trucks while in motion. Due to the use of gravel roads and the associated dust, water will be used to reduce dust generation. Henderson County Solar agreed to use best management practices (BMP) for dust mitigation.⁶¹ Dust will not be a factor during operations.

The Siting Board finds that traffic, dust, and road degradation issues can be addressed with measures proposed by Henderson County Solar and with the addition of the mitigation measures the Siting Board sets forth in this Order in Appendix A, in particular measures 18 to 26. These measures are designed to alleviate the harmful effect on the neighboring community from traffic, and road/bridge degradation during construction and operation.

II. KRS 278.710(1)-Criteria

In addition to the evaluation of the factors addressed in the SAR, the Siting Board considered the below described factors set forth in KRS 278.710(1) in rendering its decision.

Economic Impact on Affected Region and the State

⁶⁰ Application at 219.

⁶¹ Traffic Study, Application, Exhibit 12, Attachment 12.7 at 19.

According to Henderson County Solar’s economic impact report, the Project will generate lasting and significant positive economic and fiscal impacts on the affected region and the entire state. Such impacts include the creation of hundreds of construction jobs, expansion of the local tax base, and the benefits of having a long-term employer and corporate citizen in the region that has a strong commitment to investing in the communities it serves. The estimated capital cost of the facility is approximately \$52.7 million.⁶²

During the Project’s construction phase, Henderson County Solar estimated that up to 150 workers will be hired over the six to nine month construction period with a direct payroll of \$5.71 million. The vast majority of these jobs will be filled by craft workers and contractors, though approximately 20 percent of the labor will consist of specialty workers from outside the area.⁶³ The total direct, indirect, and induced economic impact is estimated to be 176 total full-time equivalent jobs in Henderson County.⁶⁴ It is estimated that an additional nine jobs with a new payroll of \$484,000 will be created in Kentucky outside of Henderson County.⁶⁵ The total economic impact for the state of Kentucky is 185 new jobs with a payroll of \$7.2 million.⁶⁶

The ongoing economic impact from the Project’s operational phase is estimated to be very small relative to the one-time impacts from the construction phase. The ongoing operational phase of the Project is expected to support two to three full time jobs in

⁶² Henderson County Solar’s Response to Staff’s First Request (filed Aug. 27, 2021), Item 76a.

⁶³ Application, Exhibit 10, Attachment 10.1 at 2.

⁶⁴ *Id.* Table 1 at 3.

⁶⁵ *Id.*

⁶⁶ *Id.*

Henderson County.⁶⁷ In addition, Henderson County Solar admitted that the new solar facility will displace labor income generated by the land now being devoted to the solar facility. The net effect of the Project is expected to be \$225,000 to \$371,000 annually for Henderson County and an additional \$58,000 to \$87,000 annually for the state outside of Henderson County.⁶⁸

The Project is also expected to generate tax revenue for both Henderson County and the state of Kentucky. During the construction phase, Henderson County is estimated to receive \$67,640 in occupational license taxes. The state of Kentucky is estimated to receive an additional \$521,000 in state income and sales taxes.⁶⁹ During the operational phase depending upon the number of additional jobs created, the project is estimated to generate additional occupational tax revenue for Henderson County and state income and sales taxes over its 30-year life.⁷⁰ The Project is also expected to generate an estimated net increase in property tax revenue of \$3,982,006 over the life of the Project.⁷¹

Harvey evaluated the economic impact of the Project. Harvey stated that the employment and tax effects would be temporary during the construction phase. During the operational phase, the economic benefits will mostly be confined to property taxes to

⁶⁷ *Id.* at 4.

⁶⁸ Application, Exhibit 10 at 3 and Attachment 10.1, Table 3 at 4.

⁶⁹ *Id.*, Exhibit 10, Attachment 10.1, Table 2 at 3.

⁷⁰ *Id.*, Exhibit 10, Attachment 10.1, Table 4 at 5.

⁷¹ *Id.*, Exhibit 10 at 5.

multiple Henderson County authorities. Overall, Harvey opined that the socioeconomic impacts of the Project represent a positive, albeit small, contribution to the region.⁷²

Having reviewed the record, the Siting Board finds that Henderson County Solar facility will have a positive economic impact on the region.

Existence of Other Generating Facilities

Henderson County Solar was unable to locate a suitable location in Henderson County where existing electric generating facilities were located.⁷³

Local Planning and Zoning Requirements

In December 2019, the Henderson County Fiscal Court adopted a new Solar Ordinance: Article XXX 'Solar Energy System Regulations (Pursuant to Section 30.01 of the Solar Ordinance, the Proposed Project is a Level 3 Solar Energy System ("Level 3 SES") "Setback requirements for a Level 3 SES are: 1) All equipment shall be at least twenty-five (25) feet from the perimeter property lines of the project area; 2) No interior property line setbacks shall be required if the project spans multiple contiguous properties; 3) All equipment shall be located at least one hundred (100) feet from any residential structure and; the maximum height of any individual component will be 25 feet measured from the ground level of the component."⁷⁴

A copy of the Solar Ordinance was provided by Henderson County Solar,⁷⁵ and

⁷² See Harvey Report, Section II at 5–6.

⁷³ Application, Volume 1, Exhibit 7, Tab 7 at unnumbered 134.

⁷⁴ *Id.*, Volume 1, Exhibit 5 Attachment at 1-2 (quoting Henderson County Solar Energy System Regulations, Article XXX, Section 30.02).

⁷⁵ *Id.*, Volume 1, Exhibit 5, Attachment at 1-13.

the Siting Board is informed that the Project will comply with those requirements.⁷⁶

Impact on Transmission System

Henderson County Solar asserted that the proposed facility's effect on the electricity transmission system of Kentucky will be minimal. Further, Henderson County Solar anticipated that any costs related to upgrades to the electricity transmission system of Kentucky, directly related to the proposed facility and required for its interconnection and operation, will be borne by it.⁷⁷

The information supporting the expectation of minimal effects on the electricity transmission system, and the steps underway to confirm such effects, are described below.

Henderson County Solar proposed to interconnect the proposed 50 MW-ac solar electric generating facility to the 69kV bus at Substation No. 7, owned and operated by HMP&L, and managed by the Midcontinent Independent System Operator (MISO), the regional transmission system operator governing HMP&L's transmission system. An analysis of load data indicates that the output from a solar electric generating facility beyond the size of this Project would be fully consumed within HMP&L's system, without any excess production that would need to be exported through MISO. Accordingly, Henderson County Solar anticipated that the output from the Project would comfortably fit within HMP&L's hourly load profile and would be 100% consumed locally, without the need to export any power onto the MISO system. This would avoid any export-related system upgrades on the MISO system outside of HMP&L.

⁷⁶ *Id.*, Volume 1, Exhibit 4, Attachment at 1.

⁷⁷ *Id.*, Volume 1, Exhibit 9, Tab 9.

Henderson County Solar anticipated that the output from a solar electric generating facility would fit within the electrical rating limits of HMP&L's transmission infrastructure and avoid any "internal" transmission-related system upgrades on the HMP&L system.

In June 2020, Henderson County Solar submitted an Interconnection Request for a 50 MW Generating Facility (IR) to MISO.⁷⁸ The proposed Project is included for study in MISO's Definitive Planning Phase for IRs. When the first study results are obtained Henderson County Solar will receive information from MISO regarding any potential system upgrades required to accommodate the proposed generation capacity. Henderson County Solar has agreed to submit that information to the Siting Board.

Henderson County Solar also engaged a third-party engineering consultant to determine the ability of each system to accommodate the injection of up to 50 MW from the proposed Project at the 69kV bus at HMP&L Substation No. 7. The consultant, Electric Power Engineers (EPE) performed load flow calculations and its analysis indicates that the 69kV bus at HMP&L's Substation No. 7, and HMP&L's 69kV transmission system, will likely be able to accept this injection without the need of any HMP&L transmission upgrades.⁷⁹

The Siting Board has considered whether the additional load imposed upon the electricity transmission system by use of the Henderson County Solar facility will adversely affect the reliability of service for retail customers of electric utilities regulated by the Public Service Commission (PSC). Having reviewed the record, the Siting Board finds that the proposed Project will not adversely impact the reliability of service provided

⁷⁸ *Id.*, Exhibit 9, Attachment 9.1.

⁷⁹ *Id.*, Exhibit 9, Attachment 9.2, EPE Report at 45–47.

by retail electric utilities under the PSC's jurisdiction. This is based upon Henderson County Solar's commitment to the interconnection process and protocols and its acceptance of any cost obligations that may arise.

In addition the Siting Board has evaluated the Record with regard to safety. No part of the solar farm will be accessible to the public. Within the solar farm, all solar equipment will be grounded and touch-safe, fully compliant with all applicable codes and accessible only to qualified personnel, with the exception of guided tours. Wires will be buried in underground conduit when the amperage or voltage will accumulate to a dangerous level, and any wires outside of the security fence will either be buried or placed on poles to the same standard of safety required by the local utility. The requirements of Henderson County's Solar Ordinances are consistent with the NESC, Section 11, Rule 110 and Henderson County Solar will ensure the solar site meets the requirements of the NESC in these respects.

Compliance with Setback Requirements

Setback requirements are established by the Solar Ordinance and will be complied with by this Project.⁸⁰

History of Environmental Compliance

Henderson County Solar asserted that it has not violated any state or federal environmental laws or regulations, nor has any person or entity with an ownership interest in Henderson County Solar done so.⁸¹ No evidence has been presented to the contrary.

⁸⁰ *Id.*, Exhibit 4 at 2.

⁸¹ *Id.*, Volume 1, Exhibit 11 at unnumbered 206.

Decommissioning

Henderson County's Solar Ordinance contains a provision related to decommissioning. The life of the facility is projected to last 30 years, at which time measures would be taken by Henderson County Solar or its successors to remove the apparatus of the solar facility and restore the property to pre-facility status. There is no final plan yet prepared for decommissioning. In addition a bond is required by that Solar Ordinance. The applicable property leases also contain covenants to the property owners on these points.⁸²

The Siting Board finds that mitigation measures are necessary to insure protection from potential nonperformance of the decommissioning obligation. The Siting Board will require Henderson County Solar to implement mitigation measures that require it and its successors and assigns to meet all land restoration requirements in the leases with participating landowners, as well as mitigation measures that require a decommissioning plan specific to the Project. These additional mitigation measures are set forth in this Order in Appendix A, mitigation measures 28 through 32.

CONCLUSION

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that Henderson County Solar has presented sufficient evidence to support the issuance of a Construction Certificate to construct the proposed merchant solar facility. The Siting Board conditions its approval upon the full implementation of all mitigation measures and other requirements described herein and listed in Appendix A to this Order. A map showing the location of the proposed solar generating facility is

⁸² Harvey Report at II-6.

attached to this Order as Appendix B.

IT IS THEREFORE ORDERED that:

1. Henderson County Solar's application for a Construction Certificate to construct an approximately 50 MW merchant solar electric generating facility in Henderson County, Kentucky, is conditionally granted subject to full compliance with the mitigation measures and conditions prescribed in Appendix A.

2. Henderson County Solar shall fully comply with the mitigation measures and conditions prescribed in Appendix A.

3. In the event mitigation measures within the body of this Order conflict with those prescribed in Appendix A, the measures in Appendix A shall control.

4. Within 30 days of entry, Henderson County Solar will send a copy of this Order to all the adjoining landowners who previously were required to receive notice of the Project.

5. This case is closed and removed from the commission's docket.

By the Kentucky State Board on Electric
Generation and Transmission Siting



ATTEST:

A handwritten signature in blue ink that reads "Linda G. Bridwell". The signature is written in a cursive style.

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

Case No. 2020-00391

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2020-00391 DATED DEC 22 2021

MITIGATION MEASURES AND CONDITIONS IMPOSED

The following mitigation measures and conditions are hereby imposed on Henderson County Solar LLC (Henderson County Solar) to ensure that the facilities proposed in this proceeding are constructed as ordered.

1. A final site layout plan shall be submitted to the Siting Board upon completion of the final site design. Deviations from the preliminary site layout should be clearly indicated on the revised graphic. Those changes could include, but are not limited to, location of solar panels, inverters, transformers, substation, operation and maintenance building or other Project facilities and infrastructure.

2. Any change in the Project boundaries from the information which formed this evaluation shall be submitted to the Siting Board for review.

3. The Siting Board will determine if any deviation in the boundaries or site layout plan is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required, but if yes, the application will support the Siting Board's effort to revise its assessment of impact and mitigation requirements.

4. A final, Project specific, construction schedule, including revised estimates of on-site workers and commuter vehicle traffic, shall be submitted to the Siting Board. Deviations from the preliminary construction schedule provided in this matter should be clearly indicated. The Siting Board will determine if any deviation to the construction schedule or workforce estimates is likely to create a materially different pattern or

magnitude of impacts. If not, no further action is required, but if yes, Henderson County Solar will support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

5. Henderson County Solar 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.

6. Henderson County Solar's access control strategy shall also include appropriate signage to warn potential trespassers. Henderson County Solar must ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners.

7. According to NESC regulations, the security fence must be installed prior to the energization of any electrical equipment. The substation shall have its own separate security fence and locked access installed. Henderson County Solar will comply with the fencing requirements of NESC.

8. Existing vegetation between solar arrays and nearby roadways and homes shall be left in place to the extent feasible to help minimize visual impacts and screen the Project from nearby homeowners and travelers. Henderson County Solar will not remove any existing vegetation except to the extent it must remove such vegetation for the construction and operation of Project components.

9. Henderson County Solar 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.

10. Henderson County Solar shall carry out visual screening consistent with

the plans proposed in its application, SAR, and the maps included and ensure that the proposed new vegetative buffers are successfully established and develop as expected over time. Should vegetation used as buffers die over time, Henderson County Solar shall replace that as appropriate.

11. Henderson County Solar shall provide a visual buffer as set forth in the Solar Ordinance and the plan to be submitted to the Henderson City-County Planning Commission. In addition, Henderson County Solar shall provide a visual buffer if the native vegetation between the Project solar arrays and adjacent residences or businesses is not adequate. If it is not adequate, then vegetation ten feet thick reaching six feet at maturity (in four years) will be added by Henderson County Solar 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. To the extent that an affected adjacent property owner indicates to Henderson County Solar that such a buffer is not necessary, Henderson County Solar will obtain that property owner's written consent and submit such consent in writing to the Siting Board.

12. Henderson County Solar shall cultivate at least two acres of native pollinator-friendly species onsite.

13. Henderson County Solar is required to limit the construction activity, process, and deliveries to the hours between 8 a.m. and 6 p.m. local time Monday through Saturday. Henderson County Solar shall survey and stake out a "Kenergy Zone" around that commercial establishment at 6402 Old Henderson-Corydon Rd., Henderson, Kentucky 42419. In this Kenergy Zone, Henderson County Solar will limit pile driving to Saturday. Within the "Neighbor Zones" identified by in the application, the Siting Board

approves Henderson County Solar's proposal and directs that construction activities that create a higher level of noise, such as pile driving, will be limited to the hours of 9 a.m. to 5 p.m. local time Monday through Friday. Non-noise-causing and non-construction activities can take place on the site between 7 a.m. and 10 p.m., Monday through Sunday, including field visits, arrival, departure, planning meetings, mowing, surveying, etc.

14. Henderson County Solar shall notify residents and businesses within 2,400 feet of the project boundary about the construction plan, the noise potential, and mitigation plans one month prior to the start of construction.

15. If the pile driving activity occurs within 1,500 feet of a noise sensitive receptor, including near the residences on Lover's Lane, Henderson County Solar 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 solar site; or any other comparable method). Henderson County Solar can forego using noise suppression measures if it employs a panel installation method that does not use pile driving, so long as that method does not create noise levels similar to pile driving.

16. Henderson County Solar shall place panels, inverters, and substation equipment consistent with the distances to noise receptors indicated in the local Solar Ordinance. The Siting Board approves Henderson County Solar's proposed setback, which is in excess of the requirements of the Solar Ordinance, for a minimum of 200 feet between any solar panel and any adjacent residences, and the minimum distance between the closest residential structure and any inverter of 750 feet. These further 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 include language advising the participating landowners of the standard setback required by the Solar Ordinance and the order. All agreements by participating landowners to lesser setbacks must be filed with the Siting Board prior to commencement of construction of the Project.

17. Henderson County Solar shall fix or pay for repairs for damage to roads and bridges resulting from any vehicle transport to the site. For damage resulting from vehicle transport in accordance with all permits, those permits will be controlling.

18. Henderson County Solar shall comply with all laws and regulations regarding the use of roadways.

19. Henderson County Solar shall implement ridesharing between construction workers when feasible, use appropriate traffic controls or allow flexible working hours outside of peak hours to minimize any potential delays during AM and PM peak hours.

20. Henderson County Solar shall consult with the Kentucky Transportation Cabinet (KYTC) regarding truck and other construction traffic and obtain necessary permits from the KYTC.

21. Henderson County Solar shall consult with the HCRD regarding truck and other construction traffic and obtain necessary permits from the HCRD.

22. Henderson County Solar shall develop special plans and obtain necessary permits before transporting heavy loads, especially the substation transformer, onto state or county roads.

23. Henderson County Solar shall comply with any road use agreement

executed with HCRD. Such an agreement might include special considerations for overweight loads, routes utilized by heavy trucks, road weight limits, and bridge weight limits.

24. Henderson County Solar shall develop and implement a traffic management plan to minimize the impacts on traffic flow and keep traffic safe. Any such traffic management plan shall also identify any noise concerns during the construction phase and develop measures that would address those noise concerns.

25. Henderson County Solar shall properly maintain construction equipment and follow best management practices related to fugitive dust throughout the construction process, including use of water trucks. Dust impacts shall be kept at a minimal level. The Siting Board requires Henderson County Solar's compliance with 401 KAR 63:010.

26. If any person shall acquire or transfer ownership of, or control, or the right to control the Project, by sale of assets, transfer of stock, or otherwise, or abandon the same, Henderson County Solar or its successors or assigns shall request explicit approval from the Siting Board with notice of the request provided to the Henderson County Fiscal Court. In any application requesting such abandonment, sale or change of control, Henderson County Solar shall certify its compliance with KRS 278.710(1)(i).

27. As applicable to individual lease agreements, Henderson County Solar, its successors, or assigns will abide by the specific land restoration commitments agreed to by individual property owners, as described in each executed lease agreement.

28. Henderson County Solar shall file a full and explicit decommissioning plan with the Siting Board. This plan shall commit Henderson County Solar to removing

all facility components, above-ground and below-ground, regardless of depth, from the Project site. Upon its completion, this plan shall be filed with the Siting Board or its successors. The decommissioning plan shall be completed at least one month prior to construction of the Project.

29. Henderson County Solar shall file a bond with the Henderson County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan naming Henderson County as a third-party obligee (or secondary, in addition to individual landowners) beneficiary, in addition to the lessors of the subject property insofar as the leases contain a decommissioning bonding requirement, so that Henderson County will have the authority to draw upon the bond to effectuate the decommissioning plan. For land in which there is no bonding requirement otherwise, Henderson County shall be the primary beneficiary of the decommissioning bond for that portion of the project. The bond(s) shall be filed with the Henderson County Treasurer or with a bank, title company or financial institution reasonably acceptable to the county. The acceptance of the county of allowing the filing the bond(s) with an entity other than the Fiscal Court, through the Henderson County Treasurer, can be evidenced by a letter from the Judge-Executive, the Fiscal Court, or the County Attorney. The bond(s) shall be in place at the time of commencement of operation of the Project. The bond amount shall be reviewed every five years at Henderson County Solar's expense to determine and update the cost of removal amount. 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 Henderson 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. Henderson County Solar or its assigns must provide notice to the Siting Board if during any two-year (730 days) period, it replaces more than 20 percent of its facilities. Henderson County Solar shall commit to removing the debris and replaced facility components from the Project site and Henderson County upon replacement. If the replaced facility components are properly disposed of at a permitted facility, they do not have to be physically removed from Henderson County. However, if the replaced facility components remain in Henderson County, Henderson County Solar must inform the Siting Board where the disposal site is located.

30. Any disposal or recycling of Project equipment, during operations or decommissioning of the Project, shall be done in accordance with applicable laws and requirements.

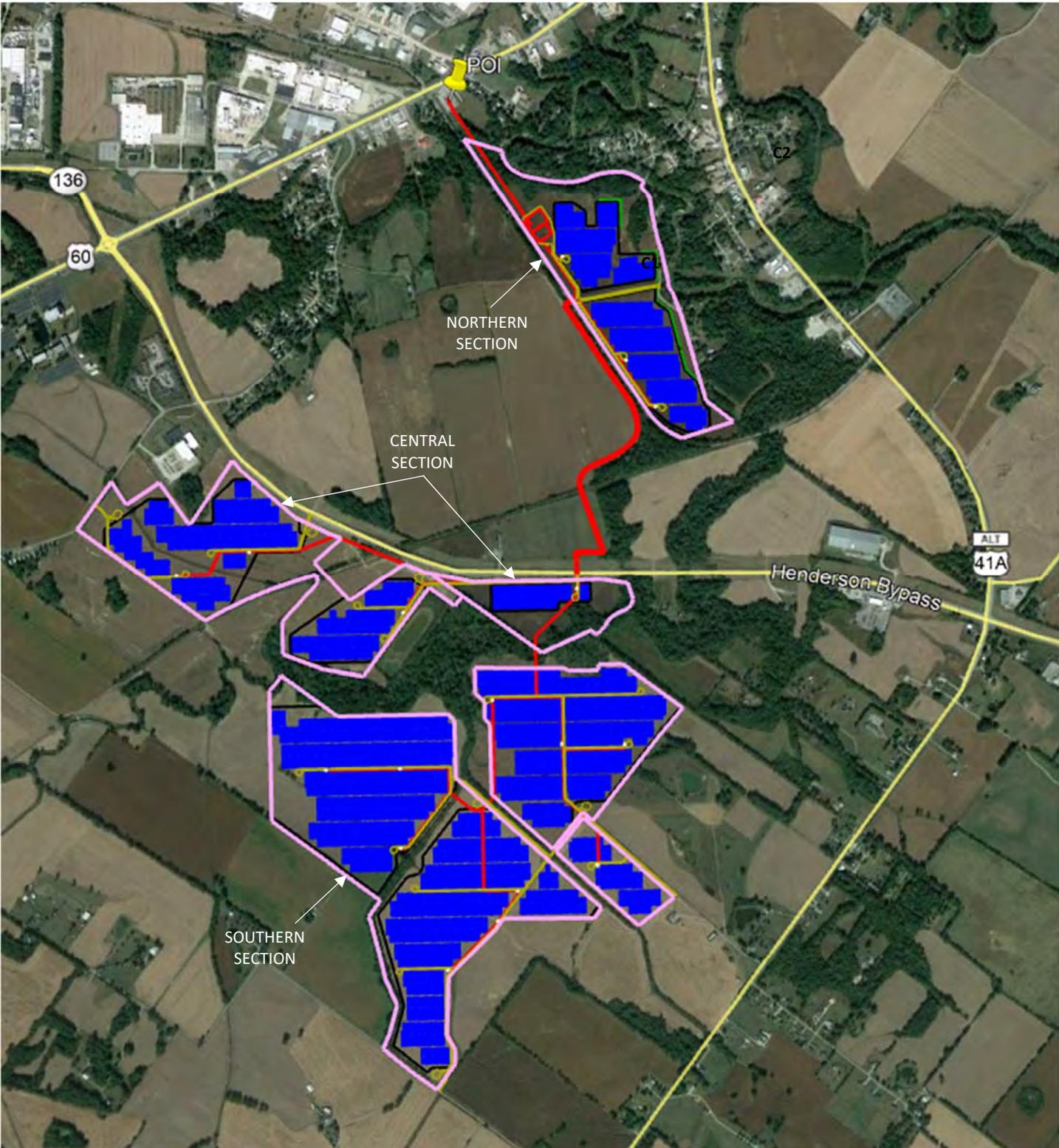
31. Henderson County Solar shall implement a Complaint Resolution Program to address any complaints from surrounding landowners. Henderson County Solar shall also submit annually a status report associated with its Customer Resolution Program, providing, among other things, the individual complaints, how Henderson County Solar addressed those complaints, and the ultimate resolution of those complaints identifying whether or not the resolution was to the complainant's satisfaction.

32. At least 30 days prior to construction it will notify residents and businesses within 2,400 feet of the Project boundary about the construction plan and the complaint resolution process.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING
IN CASE NO. 2020-00391 DATED DEC 22 2021

ONE PAGE TO FOLLOW



 <p>COMMUNITY ENERGY®</p> <p>COMMUNITY ENERGY SOLAR, LLC</p> <p>3 RADNOR CORP CENTER, SUITE 300 100 MATSONFORD RD. RADNOR, PA 19087 (866) 946-3123</p>	<p>HENDERSON COUNTY SOLAR - 50MW SOLAR PROJECT HENDERSON COUNTY, KY</p>		<p>SITE PLAN OVERVIEW</p>	
		<p>HENDERSON, KY</p>		
		<p>LAT: 37.79N LONG: -87.63W</p> <p>DATE: 6.18.2021</p>		

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