## COMMONWEALTH OF KENTUCKY

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

#### In the Matter of:

ELECTRONIC APPLICATION OF SEBREE	)
SOLAR, LLC FOR A CERTIFICATE TO	)
CONSTRUCT AN APPROXIMATELY 250	)
MEGAWATT MERCHANT SOLAR ELECTRIC	)
GENERATING FACILITY AND AN	)
APPROXIMATELY 4.5 MILE NONREGULATED	)
ELECTRIC TRANSMISSION LINE IN	)
HENDERSON COUNTY, KENTUCKY AND	)
WEBSTER COUNTY, KENTUCKY PURSUANT	)
TO KRS 278.700 AND 807 KAR 5:110	)

CASE NO. 2021-00072

#### <u>O R D E R</u>

On August 13, 2021, Sebree Solar, LLC (Sebree Solar) filed an application with the Kentucky State Board on Electronic Generation and Transmission Siting (Siting Board) requesting a Certificate of Construction to construct an approximately 250megawatt (MW) merchant solar generating facility in Henderson County, Kentucky, and an approximately 4.5-mile nonregulated electric transmission line in Henderson and Webster counties, Kentucky (Project).

There are no intervenors in this matter. Pursuant to KRS 278.708(5), the Siting Board hired Wells Engineering to review Sebree Solar's site assessment report (SAR). Pursuant to a procedural schedule established on September 21, 2021, Sebree Solar responded to two rounds of discovery. A site visit was held on October 21, 2021. The Siting Board consultant, Wells Engineering, filed a report (Wells Report) on November 24, 2021. Sebree Solar responded to the Wells Report on December 3, 2021. A formal hearing was held on December 21, 2021. Sebree Solar filed its responses to post-hearing requests for information on January 14, 2022. The matter now stands submitted for a decision.

### LEGAL STANDARD

The filing requirements and standard for review requests to construct a merchant generating facility are outlined 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 Sebree Solar to prepare an 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 and any anticipated degradation of roads and lands in the vicinity of the facility; and (6) any mitigating measures to be suggested by Sebree 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

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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 the Applicant has an excellent environmental compliance history.

## PROPOSED FACILITY

The Project will be located on 1,200 acres in Henderson County, Kentucky. The Project will include approximately 850,000 photovoltaic solar panels, associated ground-mounted racking, 78 inverters, and a project substation transformer that will connect via a 161 kV transmission line to the existing Reid Substation owned by Big Rivers Electric Corporation (BREC) at a location of approximately 4.85 miles away in Webster County, Kentucky.<sup>1</sup>

### **DISCUSSION AND FINDINGS**

#### I. KRS 278.708: SAR Filing Requirements and Mitigation Measures

## Mitigation Measures Proposed by Sebree Solar and Siting Board Consultant

As required by KRS 278.708(4), Sebree 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), the Wells Report listed mitigation measures in addition to Sebree Solar's proposed mitigation measures.<sup>2</sup> Sebree Solar generally agreed with the mitigation measures contained in the Wells Report, noting the additional steps that will be taken to comply with creating an updated site map, noise issues, and protection of

<sup>&</sup>lt;sup>1</sup> Application at 2.

<sup>&</sup>lt;sup>2</sup> Wells Report at 31.

the water supply. Sebree Solar did take issue with the Wells Report's assertion that the property value assessment study in the application was flawed; however, Sebree Solar ultimately agreed with the Wells Report's conclusion that there will not be a negative impact on property value.<sup>3</sup>

The Siting Board has reviewed the mitigation measures proposed by Sebree Solar and Wells Engineering and finds that in addition to those Sebree 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 SAR and the Wells 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.

Sebree Solar submitted a detailed site plan, attached as Appendix B to this Order, which displays solar panels, inverters, main access area, laydown area, fenced area, internal roads, security fencing, and the project substation.

<sup>&</sup>lt;sup>3</sup> Sebree Solar's Response to Consultant's Report at 4.

The site is now chiefly agricultural land with a few residential homesteads.<sup>4</sup> The remaining land is forested areas with some wetlands.<sup>5</sup> The Project does not contain federal- or state-protected land, rivers, or habitat.<sup>6</sup> Sebree Solar secured the Project site under long-term leases and utility easements. Adequate legal descriptions of the boundaries of the proposed site are provided and mapped in the Record.<sup>7</sup> There are several churches and an elementary school near the project boundaries. There are six cemeteries within the project boundaries.<sup>8</sup>

Location and access ways are set forth in the application. Multiple entrance points will allow access during construction and operation. A seven-foot security fence that complies with the Henderson County Solar Zoning Ordinance (Henderson Ordinance) will enclose the facility during construction and operation.<sup>9</sup>

The Wells Report concluded that Sebree Solar has generally complied with the requirements for describing the facility and site development plan.<sup>10</sup>

Having reviewed the record of this proceeding, the Siting Board finds that Sebree 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 specific mitigation measures and requirements related to the

<sup>&</sup>lt;sup>4</sup> Application, Volume 2, Tab 12, Attachment A, Exhibit A at 152.

<sup>&</sup>lt;sup>5</sup> *Id.*, Exhibit 3.

<sup>&</sup>lt;sup>6</sup> Sebree Solar's Responses to Siting Board Staff's Post-Hearing Request for Information (filed Jan. 14, 2022) (Sebree Solar's Responses to Staff's Post-Hearing Request), Item 9, Attachment 9 at 16.

<sup>&</sup>lt;sup>7</sup> Application, Volume 2, Tab 12, Attachment A, Exhibit 2.

<sup>&</sup>lt;sup>8</sup> Id., Exhibit 3.

<sup>&</sup>lt;sup>9</sup> Application, Volume 2, Tab 12, Attachment A, at 1.

<sup>&</sup>lt;sup>10</sup> Wells Report at 24–25.

description of the facility and the proposed site development plan. Specifically, the Siting Board will require that Sebree Solar keep the Siting Board apprised of changes throughout the development of the Project and, as such, will order Sebree Solar to provide the final site plan before the commencement of construction. The final site plan should 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 proposals of the Wells 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

Sebree Solar indicated that the Project will be compatible with scenic surroundings. The area surrounding the Project is largely agricultural with scattered rural residential properties. The chief impact on the view will be from the solar panels. Sebree Solar maintained it will comply with Henderson Ordinance 30.02.d regarding vegetative screening and Henderson Ordinance 30.02.c relating to setback requirements. The Wells Report found that the Project would be compatible with its surroundings.<sup>11</sup>

Having reviewed the record, the Siting Board finds that, while there will always be an impact on the scenery of neighboring properties, the impact of this project is minimal. The proposed vegetative buffer, along with other mitigation measures proposed by Sebree Solar, will minimize the effects that the proposed facility will have on the scenic surroundings of the site. However, the Siting Board will require mitigation measures in addition to those proposed by Sebree Solar and required by the local ordinance. Those

<sup>&</sup>lt;sup>11</sup> Wells Report at 26.

are set forth in Appendix A to this Order, and in particular mitigation measures 7 to 11 and shall be adhered to.

### Impact on Property Values

Sebree Solar submitted a Property Value Impact Report from CohnReznick, LLP (CohnReznick) that found, based upon a comparative analysis and interviews with local market participants the solar facility is not anticipated to negatively impact property values in and around the Project.<sup>12</sup> The report indicates that the solar facility would function harmoniously with the nearby surroundings, which are primarily agricultural. Additionally, the operation of the solar facility would not generate the level of noise, odor, or traffic to negatively impact the nearby surroundings compared to a fossil fuel generating facility.

The Wells Report evaluated the impacts to property values. Wells Engineering engaged Mary McClinton Clay, MAI, who produced a report reviewing Sebree Solar's Property Value Impact Report (Clay Report). The Clay Report contended the Sebree Solar Property Value Impact Report contained flaws and inconsistencies in data analysis and stated that Sebree Solar's Property Value Impact Report Value Impact Report value Impact Report is fundamentally flawed, non-credible, inconsistent with the Uniform Standards of Professional Appraisal Practice (USPAP), and should not be used for any decision-making purposes related to the Sebree Solar facility.<sup>13</sup> The main contention the Clay Report had with the Property Value Impact study is the lack of data in the appraisals and the effect of the Project on property values. However, the Wells Report ultimately rejected the Clay Report's findings and concluded it could be presumed, based on the practical observation and the multiple studies done

<sup>&</sup>lt;sup>12</sup> See Application, Volume 2, Tab 12, Attachment A, Exhibit 1, Property Value Impact Report.

<sup>&</sup>lt;sup>13</sup> Wells Report, Attachment D, Review of Proposed Sebree Solar Project Property Value Impact Study at 1.

by the applicants of other solar projects in Kentucky, situated in similar rural environments, the impact on property values is negligible.<sup>14</sup> In response to the Wells Report, Sebree Solar provided information from CohnReznick to address issues from the Clay Report, explicitly noting that USPAP standards were used when applicable, and that the USPAP standards noted by the Clay Report do not apply to the type of report submitted in this matter. Instead, the appraisal methodologies employed in CohnReznick's initial report are commonly used when determining the impact of solar farms on property values.<sup>15</sup> CohnReznick further explained their methodology, including their paired sales analysis, and noted that some the Clay Report's citations were unsupported, incorrect, or misrepresented.<sup>16</sup>

Having reviewed the record, the Siting Board finds sufficient evidence to conclude that the proposed Sebree Solar facility will more than likely not have any adverse impact on nearby property values. As noted earlier, the characteristics of the solar facility's operations are passive. It does not produce any air, noise, waste, or water pollution, nor does it create any traffic issues during operations. Further, the conclusions in the Clay Report were rejected by the Siting Board's consultant and were sufficiently rebutted by CohnReznick and do not alter the Siting Board's conclusion regarding the lack of impact on nearby property values.

<sup>&</sup>lt;sup>14</sup> Wells Report at 27.

<sup>&</sup>lt;sup>15</sup> Sebree Solar's Response to the Wells Report (filed Dec. 3, 2021) at 6.

<sup>&</sup>lt;sup>16</sup> *Id.* at 7–10.

## Anticipated Noise Level

DNV Energy USA Inc. (DNV) conducted a Noise Impact Assessment for Sebree Solar.<sup>17</sup> DNV concluded that the bulk of noise issues would occur during construction. According to DNV, the noise is expected to be less than 78.0 dBA, which is similar to or lower than noise caused by typical farming equipment and in line with what is typical for the area.<sup>18</sup> The loudest source from construction is anticipated to be pile driving equipment. The anticipated noise produced by pile driving equipment is estimated to be 94.9 dBA at 50 feet.<sup>19</sup> The maximum anticipated sound level for any non-participating residence will be approximately 86.3 dBA at 134 feet.<sup>20</sup> Sebree Solar estimated that 5-10 pile drivers will be used at once, but it will be spread across multiple site locations, reducing the noise impact.<sup>21</sup> Pile-driving within 1,000 feet of any noise-sensitive receptor is expected to last no longer than a month.<sup>22</sup>

Sebree Solar noted that actual, onsite measurements of construction-related noise are expected to be lower than the results in the Noise Impact Assessment because the assessment assumes that all equipment would be operating simultaneously and from the exact source location.<sup>23</sup> To lessen the impact of construction activity, Sebree Solar

<sup>18</sup> Id. at 1.

<sup>19</sup> *Id*. at 6.

<sup>&</sup>lt;sup>17</sup> Application, Volume 2, Tab 12, Attachment A, SAR, Exhibit 4.

<sup>&</sup>lt;sup>20</sup> Sebree Solar's Responses to Siting Board Staff's Second Request for Information (filed Nov. 12, 2021) (Sebree Solar's Responses to Staff's Second Request), Item 5.

<sup>&</sup>lt;sup>21</sup> *Id*., Item 15.

<sup>&</sup>lt;sup>22</sup> *Id.*, Item 4.

<sup>&</sup>lt;sup>23</sup> Application, Volume 2, Tab 12, Attachment A, SAR, Exhibit 4 at 6.

proposed to limit pile driving activity to 6 a.m. through 6 p.m. Still, Sebree Solar did not provide any other plans for noise suppression methods.<sup>24</sup>

During the Project's operation phase, solar inverters and substation transformers are expected to produce noise. The level is expected to be 27.7 dBA to 51.0 dBA during operation.<sup>25</sup> The noise evaluation for the operation phase was the aggregate of sound generated by solar inverters and substation transformers under ideal conditions. The highest noise in the project area was 51.0 dBa, which Sebree Solar compared to the sound levels in a typical, quiet, rural environment.<sup>26</sup> Sebree Solar stated this estimate is conservative, and it is likely actual sound levels during the operation phase will be lower.<sup>27</sup>

Sebree Solar stated that it was unaware of any specific local noise ordinances or construction schedule ordinances in Henderson County or the city of Robards, but stated it would comply with all local ordinances and regulations concerning noise control.<sup>28</sup>

Wells Engineering contracted with Cloverlake Consulting Services (Cloverlake) to conduct a Noise & Environmental Assessment.<sup>29</sup> Wells Engineering recommended that Sebree Solar provide notices regarding potential construction and operation noise, as well as institute limits on working hours during the construction period.<sup>30</sup>

<sup>&</sup>lt;sup>24</sup> Sebree Solar's Responses to Siting Board Staff's First Request for Information (Sebree Solar's Responses to Staff's First Request) (filed Oct. 15, 2021), Item 15, *see also* Application Volume 2, Tab 12, Attachment A, SAR at 8.

<sup>&</sup>lt;sup>25</sup> Application, Volume 2, Tab 12, Attachment A, SAR, Exhibit 4 at 15.

<sup>&</sup>lt;sup>26</sup> *Id*. at 10.

<sup>&</sup>lt;sup>27</sup> Id. at 15.

<sup>&</sup>lt;sup>28</sup> Application, Volume 1, Tab 4, Exhibit 1; Sebree Solar's Responses to Staff's First Request (filed Oct. 15, 2021), Item 33.

<sup>&</sup>lt;sup>29</sup> Wells Report, Attachment C, at 12–13.

<sup>&</sup>lt;sup>30</sup> *Id.* at 30.

The Siting Board finds noise from construction will be intermittent and temporary to nearby residences. As provided by both Sebree Solar and Wells Engineering, the construction noise will be the loudest during the pile driving portion of the construction process; however, the cumulative construction noise will not permanently damage nearby residents. The Siting Board further finds that the operational noise from the Project components should have little effect on residences in the area. Nevertheless, the impact of construction noise on nearby residents will be significant, albeit transitory.

The Siting Board finds that Sebree Solar's application complies with statutory requirements to disclose 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, Sebree Solar is ordered to implement specific mitigation measures. These are designed to limit the effects of construction noise by controlling the hours of construction in general, as well as the time and manner in which pile driving can occur. Further, the Siting Board will mandate that noise suppression measures be utilized by Sebree Solar during the pile driving process, similar to those required by other recent applicants for construction certificates. These mitigation measures are outlined in Appendix A to this Order, and in particular, mitigation measures 12 to 15.

#### Impact on Roads, Railways, and Fugitive Dust

The anticipated routes for construction equipment, materials deliveries, and construction and operation crews to access the Project site include the existing roads adjacent to the site.<sup>31</sup> Construction activities are expected to take 18 to 24 months. During this time, a temporary increase in traffic is anticipated near the vicinity of the

<sup>&</sup>lt;sup>31</sup> Application, Volume 2, Tab 12, Attachment A, SAR, Exhibit 5 at 1–3.

proposed site.<sup>32</sup> Sebree Solar stated safety precautions including signage, signaling, flagmen, and temporary land closures will be utilized as needed.<sup>33</sup> Sebree Solar further confirmed it would adhere to all local and state requirements related to repairing road infrastructures following construction.<sup>34</sup> The Siting Board finds that traffic and road degradation issues can be addressed with Sebree Solar's measures and those mitigation measures outlined in Appendix A, in particular, mitigation measures 17 through 24.

One CSX railway passes through the Project. Sebree Solar will not be using the railway for the construction or operation of the facility. Any additional road traffic caused by construction will not impact the railway.<sup>35</sup>

The Siting Board anticipates fugitive dust from the construction phase. To reduce the potential dust impacts, Sebree Solar has affirmed that construction trucks will be covered with a canopy.<sup>36</sup> Internal roadways will be constructed from compacted gravel. Due to an increase associated with dust from gravel roads and site use in general, water may be applied to reduce dust generation as needed.<sup>37</sup> Dust will not be a factor during operations. The Siting Board requires additional mitigation measures to reduce this harmful effect on the area, as outlined in Appendix A, mitigation measure 25.

<sup>34</sup> Id.

<sup>35</sup> *Id*. at 6.

<sup>36</sup> *Id*. at 5–6.

<sup>37</sup> Id.

<sup>&</sup>lt;sup>32</sup> *Id.* at 3–4.
<sup>33</sup> *Id.* at 4.

## II. KRS 278.710(1) Criteria

In addition to evaluating the factors addressed in the SAR, the Siting Board considered the below-described factors forth in KRS 278.10(1) in rendering its decision. Economic Impact on Affected Region and State

According to Sebree Solar's economic impact report, the proposed solar facility will generate significant, positive, short-term, and long-term financial and fiscal impacts on the affected region and the entire state. Such impacts include the creation of hundreds of construction jobs, expanding the local tax base, and the benefits of having a long-term employer and corporate citizen in the region that has a solid commitment to investing in the communities it serves. The estimated capital cost of the facility is approximately \$263 million.<sup>38</sup>

During the Project construction phase, Sebree Solar estimates that up to 300 workers will be hired over the 1.5 to 2-year construction period with a direct payroll of \$24 million. The indirect and induced effects are estimated to be an additional 86 jobs with an estimated payroll of \$5.9 million.<sup>39</sup> The vast majority of these jobs will be filled by craft workers and contractors, including managers, electricians, heavy equipment operators, installers, and fencers.<sup>40</sup> The Project contractor will optimize labor costs and leverage local labor market availability.<sup>41</sup> The total direct, indirect, and induced economic

<sup>&</sup>lt;sup>38</sup> Application, Volume 1 Tab 10, Attachment A at 3.

<sup>&</sup>lt;sup>39</sup> *Id.* at 3 and 12.

<sup>&</sup>lt;sup>40</sup> *Id*. at 11.

<sup>&</sup>lt;sup>41</sup> Sebree Solar's Responses to Staff's First Request (filed Oct. 15, 2021), Item 38b.

impact is estimated to be 386 total full-time equivalent jobs in the county and new payroll of \$29.9 million.<sup>42</sup>

The ongoing economic impact from the Project's operational phase is estimated to be very small relative to the one-time effects from the construction phase. The continuing operational phase of the project is expected to support three permanent full-time jobs with an estimated average annual wage of \$80,000 to Henderson County. Over the estimated 35-year life of the Project, this equals a payroll of \$7.3 million.<sup>43</sup>

This project is also expected to generate tax revenue for both Henderson County and the state of Kentucky. Sebree Solar has not sought a Payment-in-Lieu of Taxes (PILOT) agreement with Henderson County or any tax abatement at the state level and plans to update the Siting Board if these agreements are finalized.<sup>44</sup> Sebree Solar estimates an average property (personal and real estate) tax payment of \$324,000 annually, with approximately half going to support schools. Over the project's life, roughly \$13.8 million will be paid in property taxes.<sup>45</sup> In addition, Sebree Solar estimates approximately \$1.7 million in corporate income tax revenues and \$1.4 million in sales tax revenues will be generated, though these estimates are preliminary.<sup>46</sup>

<sup>&</sup>lt;sup>42</sup> Application Volume 1 Tab 10, Attachment A at 3 and 12.

<sup>&</sup>lt;sup>43</sup> *Id*. at 13.

<sup>&</sup>lt;sup>44</sup> *Id.* at 16 and Sebree Solar's Responses to Staff's First Request (filed Oct. 15, 2021), Item 8a.

<sup>&</sup>lt;sup>45</sup> Application, Vol 1 Tab 10, Attachment A at 15.

<sup>&</sup>lt;sup>46</sup> Sebree Solar's Responses to Staff's First Request (filed Oct. 15, 2021), Item 8a.

Wells Engineering evaluated the economic impact of the Project after a review by Watters Unclaimed Property Consulting, LLC (Watters' Report).<sup>47</sup> The Watters' Report found some flaws in the analysis Sebree Solar used to calculate the economic impact of the Project. However, the Watters' Report concluded there would be a positive economic impact on the state from the Project.<sup>48</sup>

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

## Existence of Other Generating Facilities

Sebree Solar investigated the feasibility of locating the proposed facility on a site where existing electric generating facilities were located. However, no such location in Henderson County was identified.<sup>49</sup>

## Local Planning and Zoning Requirements

Section 30.02 of the Henderson Regulation addresses solar farms. That section includes the previously discussed setback requirements, which refer to the minimum distance from Project equipment of 25 feet from the perimeter property lines of the project area; and 100 feet from any residential structure.<sup>50</sup> A complete copy of the Henderson Regulation is found in Sebree Solar's Application, Volume 1, Tab 4, Attachment A. The

<sup>&</sup>lt;sup>47</sup> Wells Report, Attachment E, Review of the Applicant's Economic Impact Analysis by Watters Unclaimed Property Consulting LLC.

<sup>&</sup>lt;sup>48</sup> Wells Report, Attachment E, Review of the Applicant's Economic Impact Analysis by Watters Unclaimed Property Consulting LLC at 1.

<sup>&</sup>lt;sup>49</sup> Application, Volume 1, Tab 7.

<sup>&</sup>lt;sup>50</sup> See Sebree Solar's Responses to Staff's Post-Hearing Request (filed Jan. 14, 2022), Item 15 (confirming these distances as the applicable distances to the Project).

Henderson County Planning Commission approved Sebree Solar's site plan on October 5, 2021.<sup>51</sup>

Sebree Solar noted that Webster County had not enacted any zoning ordinances or setback requirements for the location of the Sebree Solar facility. Sebree Solar stated the Project would comply with the Henderson Regulation.<sup>52</sup>

The Siting Board finds that the Project as proposed appears to comply with the Henderson Regulation.

#### Impact on Transmission System

Sebree Solar stated the analysis of the proposed facility's projected effect on the electricity transmission system in Kentucky was initiated in 2019 with BREC as the Transmission Owner and Midcontinent Independent System Operator, Inc. (MISO) as the Transmission Provider.<sup>53</sup> MISO completed its Central Area Study Phase 1 Report in July 2021,<sup>54</sup> with two additional phases remaining. The final results for the additional two phases are expected by August 2022.<sup>55</sup>

The purpose of the MISO studies is to determine any adverse system impacts on MISO's transmission system to maintain system reliability due to the Interconnection Request. In addition, the studies detail the proposed facility addition, modifications, and upgrades that are needed to maintain a reliable interconnection for the Project. The MISO

<sup>55</sup> Id.

<sup>&</sup>lt;sup>51</sup> Sebree Solar's Responses to Staff's Second Request (filed Nov. 12, 2021), Item 2.

<sup>&</sup>lt;sup>52</sup> Application, Volume 1, Tab 5.

<sup>&</sup>lt;sup>53</sup> *Id*. Tab 9

<sup>&</sup>lt;sup>54</sup> Application, Volume 1, Attachment A.

Phase 1 Report showed the level of service of up to 250 MW could be attained with Sebree Solar's proposed upgrades to the system.<sup>56</sup>

The Wells Report noted that the original design submitted by Sebree Solar utilized only one Step-Up Transformer and a Circuit Breaker.<sup>57</sup> Due to the proposed total megawatts (MW) of energy produced by Sebree Solar, Wells recommended installing two collector transformers to prevent any potential imbalances in the system or power interruptions.<sup>58</sup> Sebree Solar stated that as it progresses in design, it will review the transformer design and add an additional unit based on the short circuit current levels.<sup>59</sup>

The Siting Board finds that Sebree Solar has satisfied the requirements of KRS 278.710(f) and that the additional load imposed upon the electricity transmission system, by use of the Sebree Solar facility, will not adversely affect the reliability of service for retail customers of electric utilities regulated by the Kentucky Public Service Commission (PSC). This is based upon Sebree Solar's commitment to the interconnection process requirements and its acceptance of any cost obligations resulting from the interconnection process and protocols consistent with the requirements under KRS 278.212.

<sup>56</sup> Id.

<sup>&</sup>lt;sup>57</sup> Wells Report, Section 3.4.2 System Faults and Impact on the Grid.

<sup>&</sup>lt;sup>58</sup> Id.

<sup>&</sup>lt;sup>59</sup> Sebree Solar's Response to Consultant's Report at 2.

## Compliance with Setback Requirements

As previously discussed, the Project is subject to a local setback requirement. Therefore, Sebree Solar has not requested a deviation, pursuant to KRS 278.704, from the statutory setback requirements for the Project.

Sebree Solar has committed to the setbacks required by the Henderson County Planning and Zoning regulations. Nevertheless, the Siting Board finds that Sebree Solar shall not place solar panels or string inverters if used, closer than 150 feet from a residence, church, or school, 25 feet from non-participating adjoining parcels, and 50 feet from adjacent roadways. Sebree Solar shall not place a central inverter and, if used, energy storage systems closer than 450 feet from a residence, church, or school. Exceptions to these setbacks for participating landowners are included in Appendix A.

## History of Environmental Compliance

Neither Sebree Solar nor any person or entity with an ownership interest in Sebree Solar has violated any state or federal environmental laws or regulations. There are no known actions, whether judicial or administrative, pending against Sebree Solar, nor any person or entity with an ownership interest in Sebree Solar.<sup>60</sup> The Siting Board considers this an important factor and finds additional requirements are necessary in the event the certificate is transferred or the ownership/control is changed. This will be set forth more fully in Appendix A at mitigation measure 26.

<sup>&</sup>lt;sup>60</sup> Application, Volume 1, Tab 11.

# Decommissioning

The proposed solar facility would have an expected useful life of approximately 35 years.<sup>61</sup> Lease agreements with participating landowners include limited commitments regarding infrastructure removal and land restoration.<sup>62</sup> Additionally, Sebree Solar must meet decommissioning requirements pursuant to the Conditional Use Permit (CUP) granted pursuant to the Henderson Regulation Section 30.02, which requires the following from the Applicant:

1. The developer shall post a Surety Bond with the Henderson City-County Planning Commission for the abandonment of the site, and in the event, the Commission must remove the facility. Abandonment shall be when the SES ceases to transfer energy continuously for twelve (12) months. The surety bond shall be one (1) percent of the total cost of the installed SES.

2. A decommissioning plan shall be submitted at the time of application by the party responsible for decommissioning and the landowner. It must include the following: (1) Defined conditions upon which the decommissioning will be initiated. i.e., there has been no power production for 12 months, the land lease has ended, or succession of use of the abandoned facility, etc.; (2) Removal of all non-utility owned equipment, conduit, structures, fencing, roads, and foundations; (3) Restoration of the property to its original condition before the development of the SES; (4) The time frame for completion of decommissioning activities; (5) the party currently responsible for decommissioning, and; (6) Plans for updating the decommissioning plan.<sup>63</sup>

<sup>&</sup>lt;sup>61</sup> *Id.*, Tab 10, Attachment A, Economic Impact Analysis.

<sup>&</sup>lt;sup>62</sup> Sebree Solar's Response to Staff's Post-Hearing Request (filed Jan. 14, 2022), Item 2.

<sup>&</sup>lt;sup>63</sup> Application, Volume 1, Tab 4, Attachment A, Henderson Ordinance, Section 30.02D.

The Siting Board finds that mitigation measures are necessary to ensure protection from potential nonperformance of the decommissioning obligations contained in leases or the Henderson Regulation. Sebree Solar will be required to implement mitigation measures that require it and its successors and assignees to meet all land restoration requirements in the leases with participating landowners, CUP's, Henderson Regulation Section 30.02, and mitigation measures that require a decommissioning plan specific to Sebree Solar. These additional mitigation measures are outlined in Appendix A; mitigation measures 28 through 31.

# III. Requirements under KRS 278.714(2)

KRS 278.714 directs the Siting Board to consider the following criteria in rendering its decision in regards to the construction of the unregulated transmission line as proposed by Sebree Solar:

- Location of proposed line and structures to support it;
- Proposed right-of-way limits;
- Existing property lines that will be crossed and names of owners;
- Distance from neighborhoods, schools, public and private parks;
- Voltages and capacities;
- Length of line;
- Terminal points;
- Substation connections;
- Statement of compliance for construction and maintenance with engineering practices and the National Electrical Safety Code (NESC).

# Full Description of the Proposed Route of Transmission Line

Sebree Solar proposes to construct a new 161 kilovolt (kV) electric transmission line to transmit the power generated by Sebree Solar to the existing BREC Reid Substation in Webster County. The transmission line will begin at the proposed substation located within the central area of the site, exit from its east boundary in Henderson County, and terminate at the existing BREC Reid Substation in Webster County.<sup>64</sup> The total length of the proposed line, including the line within Sebree Solar's boundary, is 4.85 miles.<sup>65</sup> According to the Wells Report, the transmission line description and details are adequate.<sup>66</sup> Sebree Solar has filed several maps for the proposed transmission line route.<sup>67</sup> Sebree Solar has included sketches of the proposed typical transmission line support structure and a separate map of the same scale showing the alternative routes that were considered.<sup>68</sup>

#### Detailed Description of the Proposed Transmission Line and Appurtenances

KRS 278.714(2)(c) states that a full description of the proposed electric transmission line and appurtenances is required, including the following: initial and design voltages and capacities; length of the line; terminal points; and substation connections.

Sebree Solar submitted a map showing the existing property lines that the proposed transmission line is proposed to cross.<sup>69</sup> Sebree Solar submitted copies of the leases currently procured for the route of the transmission line. However, the exact route of the transmission line is still being finalized in two locations in consultation with transmission line property landowners. These two areas, in particular, include: across the "Independence Bank" parcel in the middle of the transmission line and close to the

<sup>&</sup>lt;sup>64</sup> Application, Volume 2, Part 3, Tab 14, Attachment A.

<sup>&</sup>lt;sup>65</sup> Id.

<sup>&</sup>lt;sup>66</sup> Wells Report, Section 3.3.14 at 28.

<sup>&</sup>lt;sup>67</sup> Application, Volume 2, Part 3, Tab 14, Attachments A & B; Sebree Solar's Responses to Staff's Post-Hearing Request (filed Jan. 14, 2022), Item 3.

<sup>&</sup>lt;sup>68</sup> *Id.*; Application, Volume 1 at 4–5.

<sup>&</sup>lt;sup>69</sup> Id.

point of interconnection across the Four Star Industrial Park parcels and Kentucky Five Star Energy parcels.<sup>70</sup>

The Wells Report noted that the transmission route was chosen based on two main factors: the willingness of landowners to enter into a transmission easement agreement with the Project and minimizing the transmission length from the point of interconnection (POI) to the central project substation location to reduce total impact and cost.<sup>71</sup>

The Siting Board finds additional requirements are necessary to ensure protections exist in the case transmission route is different than the route supported by the record of this matter. This will be set forth more fully in Appendix A at mitigation measure 32.

# Compliance with National Electrical Safety Code (NESC)

KRS 278.714(2)(d) requires that the Applicant provide a statement that the proposed electric transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the NESC. Sebree Solar confirmed that the proposed electric transmission line would be built and maintained in accordance with accepted engineering practices and the NESC.<sup>72</sup>

# Requirements under KRS 278.714(3)

The Siting Board is also tasked with examining the following additional criteria in rendering its decision regarding construction of the proposed transmission line.

<sup>&</sup>lt;sup>70</sup> Wells Report, Attachment C, Section T.

<sup>&</sup>lt;sup>71</sup> Id.

<sup>&</sup>lt;sup>72</sup> Application, Volume 2, Part 3, Tab 16.

## Scenic Impact

For the proposed non-regulated transmission line, the Project features under consideration for scenic compatibility include the proposed towers to support the transmission line, the approximately 4.85-mile route of the transmission line from the expected substation location within the proposed Sebree Solar generating facility to the terminus at the BREC Reid Substation, and the cleared right of way for the transmission line.

Sebree Solar stated that the proposed route of the electric transmission line will minimize significant adverse impact to the scenic assets of Kentucky and that it will construct and maintain the line according to all applicable legal requirements.<sup>73</sup>

The Siting Board finds that Sebree Solar should discuss potential screening plan agreements with the landowners leasing land to Sebree Solar for the transmission line to determine any screening strategies that might mitigate and reduce the visual impact to the affected residences and continue to address complaints through the construction phase of the transmission line.

# Compliance with all Legal Requirements

KRS 278.714(3) helps frame the decision to be made by the Siting Board for proposed nonregulated transmission lines:

Action to grant the certificate shall be based on the board's determination that the proposed route of the line will minimize significant adverse impact on the scenic assets of Kentucky and that the Applicant will construct and maintain the line according to all applicable legal requirements. In addition, the board may consider the interstate benefits expected to be achieved by the proposed construction or modification of electric transmission facilities in the Commonwealth. If the board determines that locating the

<sup>&</sup>lt;sup>73</sup> Application, Volume 1 at 6.

transmission line will result in significant degradation of scenic factors or if the board determines that the construction and maintenance of the line will be in violation of applicable legal requirements, the board may deny the application or condition the application's approval upon relocation of the route of the line, or changes in design or configuration of the line.

As previously discussed, the Siting Board finds that overall, the proposed transmission line would not have a significant adverse impact on the scenic assets of Kentucky. Sebree Solar has complied to date with all applicable conditions relating to electrical interconnection with utilities by following the MISO interconnection process. The Siting Board finds that Sebree Solar's proposed transmission line meets the requirements of KRS 278.714(3), subject to the mitigation measures and conditions imposed in this Order and the attached Appendix A.

#### <u>CONCLUSION</u>

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that Sebree Solar has presented sufficient evidence to support the issuance of a Construction Certificate to construct the proposed merchant solar facility and nonregulated electric transmission line. The Siting Board conditions its approval upon fully implementing all mitigation measures and other requirements described herein and listed in Appendix A to the Order. A map showing the proposed solar generating facility and proposed transmission line is attached to this Order as Appendix B.

### IT IS THEREFORE ORDERED that:

1. Sebree Solar's application for a Construction Certificate to construct an approximately 250 MW merchant solar generating facility in Henderson County, Kentucky, and an approximately 4.5-mile nonregulated electric transmission line in

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Henderson and Webster counties, Kentucky, is conditionally granted subject to full compliance with the mitigation measures and conditions prescribed in Appendix A.

2. Sebree Solar shall fully comply with the mitigation measures and conditions in Appendix A.

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

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

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

# [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

By the Kentucky State Board on Electric Generation and Transmission Siting



ATTEST:

3 ridwell

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

## APPENDIX A

## APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2021-00072 DATED FEB 09 2022

#### MITIGATION MEASURES AND CONDITIONS IMPOSED

The following mitigation measures and conditions are hereby imposed on Sebree Solar LLC (Sebree 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 the location of solar panels, inverters, transformers, substations, operation and maintenance buildings, or other Project facilities and infrastructure.

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

3. The Siting Board will determine whether any deviation in the boundaries or site layout plan will likely 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. Sebree 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.

5. Sebree Solar's access control strategy shall also include appropriate signage to warn potential trespassers. Sebree Solar must ensure that all site entrances

and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners.

6. According to National Electrical Safety Code (NESC) regulations, the security fence must be installed before energizing any electrical equipment. The substation shall have its separate security fence and locked access installed. Sebree Solar will comply with the fencing requirements of NESC.

7. 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. Sebree Solar will not remove any existing vegetation except to the extent it must remove such vegetation for the construction and operation of Project components.

8. Sebree Solar shall plant native evergreen species as a visual buffer to mitigate viewshed impacts, particularly in areas directly adjacent to the Project without existing vegetation.

9. Sebree Solar shall carry out visual screening consistent with the plans proposed in its application, SAR, and the maps included and ensure proposed new vegetative buffers are successfully established and developed as expected over time. Should vegetation used as buffers die over time, Sebree Solar shall replace them appropriately.

10. Sebree Solar shall provide a visual buffer between Project infrastructure and residences or other occupied structures with a line of sight to the facility to the reasonable satisfaction of the affected adjacent property owners. To the extent that an affected adjacent property owner indicates to Sebree Solar that such a buffer is unnecessary, it will obtain that property owner's written consent and submit such authorization in writing to the Siting Board.

11. Sebree Solar shall cultivate at least two acres of native pollinator-friendly species onsite.

12. Sebree Solar is required to limit the construction activity, process, and deliveries to the hours between 8 a.m. and 6 p.m., Monday through Saturday. Non-noise-causing and non-construction activities can occur on the site between 7 a.m. and 10 p.m., Monday through Sunday, including field visits, arrival, departure, planning meetings, mowing, surveying, etc.

13. Sebree 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 before the start of construction.

14. If pile driving activity occurs within 1,500 feet of a noise-sensitive receptor, Sebree Solar shall implement a construction method to 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).

15. Sebree Solar shall initiate and maintain the Complaint Resolution Program provided to the Siting Board in the case record to address any complaints from community members. Sebree Solar shall also submit annually a status report associated with its Complaint Resolution Program, providing, among other things, the individual complaints, how Sebree Solar addressed those complaints, and the ultimate resolution of those complaints identifying whether the resolution was to the complainant's satisfaction.

16. Sebree Solar shall place panels, inverters, and substation equipment consistent with the distances to noise receptors indicated in Sebree Solar's noise and traffic study and with the setbacks required by the Henderson County Planning and Zoning regulations for the entirety of the Project. Nevertheless, Sebree Solar shall not place solar panels or string inverters, if used, closer than 150 feet from a residence, church, or school, 25 feet from non-participating adjoining parcels, and 50 feet from adjacent roadways. Sebree Solar shall not place a central inverter, and if used, energy storage systems closer than 450 feet from a residence, church, or school. The only exception to these distances is allowed for parcel #81-13.1, 14873 US Highway 41 S, for transmission route option #2, in which the residence is 145 feet from the transmission line route. These setbacks shall not be required for residences owned by landowners involved in the Project that explicitly agree to lesser setbacks and have done so in writing. All agreements by participating landowners to lesser setbacks must include language advising the participating landowners of the standard setback required by this Order. All agreements by participating landowners to lesser setbacks must be filed with the Siting Board before the commencement of construction of the Project.

17. Sebree Solar shall fix or pay for damage from any vehicle transport to the project site. For damage resulting from vehicle transport in accordance with all permits, those permits will be controlling.

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

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

21. Sebree Solar shall consult with the Henderson County Road Department (HCRD) and Webster County Road Department (WCRD) regarding truck and other construction traffic and obtain necessary permits from the HCRD and WCRD.

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

23. Sebree Solar shall comply with any road use agreement executed with HCRD and WCRD. Such an agreement might include special considerations for overweight loads, routes utilized by heavy trucks, road weight limits, and bridge weight limits.

24. Sebree 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. Sebree 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 Sebree 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 the sale of assets, transfer of stock, or otherwise, or abandon the same, Sebree 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 and Webster County Fiscal Court. In any application requesting such abandonment, sale, or change of control, Sebree Solar shall certify compliance with KRS 278.710(1)(i).

27. As applicable to individual lease agreements, Sebree Solar, its successors, or assigns will abide by the specific land restoration commitments agreed to by respective property owners, as described in each executed lease agreement. Sebree Solar shall file all final executed leases for the solar facility and transmission line.

28. Sebree Solar shall file a complete and explicit decommissioning plan with the Siting Board. This plan shall commit Sebree Solar to remove 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 before the construction of the Project.

29. Sebree Solar shall file a bond with the Henderson County Fiscal Court and Webster County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan naming Henderson County and Webster 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 and Webster County will have the authority to draw upon the bond to effectuate the decommissioning plan. For land with no bonding requirement otherwise, Henderson County and Webster 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 and Webster County Treasurer or with a bank, title company, or financial institution reasonably acceptable to the counties. The acceptance of the counties of allowing the filing the bond(s) with an entity other than the Fiscal Court, through the Henderson County Treasurer and Webster 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 Sebree 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 and Webster County Fiscal Court. Such certificate shall be by letter and shall include the current amount of the anticipated bond and any change in the costs of removal or decommissioning.

30. Sebree Solar or its assigns must notify the Siting Board if, during any twoyear (730 days) period, it replaces more than 20 percent of its facilities. Sebree Solar shall commit to removing the debris and replacing facility components from the Project site and Henderson County and Webster County upon replacement. If the replaced facility components are correctly disposed of at a permitted facility, they do not have to be physically removed from the counties. However, if the replaced facility components remain in Henderson County and Webster County, Sebree Solar must inform the Siting Board of where the replaced facility is being disposed of.

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

32. Sebree Solar shall adhere to one of the proposed transmission routes presented in its response to Siting Board Staff's Post-Hearing Request for Information, Item 3. Should Sebree Solar find it necessary to include any parcel of land not included in this response in order, to finalize the route of the proposed transmission line, Sebree Solar shall return to the Siting Board to request an amendment to the location of the transmission line.

# APPENDIX B

# APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2021-00072 DATED FEB 09 2022

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