#### COMMONWEALTH OF KENTUCKY

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

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| ELECTRONIC APPLICATION OF             | ) |            |
|---------------------------------------|---|------------|
| THOROUGHBRED SOLAR, LLC FOR           | ) |            |
| CERTIFICATE OF CONSTRUCTION FOR AN    | ) | CASE NO.   |
| APPROXIMATELY 50 MEGAWATT MERCHANT    | ) | 2022-00115 |
| ELECTRIC SOLAR GENERATING FACILITY IN | ) |            |
| HART COUNTY, KENTUCKY PURSUANT TO     | ) |            |
| KRS 278.700 AND 807 KAR 5:110         | ) |            |

# ORDER

On October 12, 2022, Thoroughbred Solar, LLC (Thoroughbred 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 of approximately 530 acres of land in Hart County, Kentucky located near Rowletts, Kentucky.

There are no intervenors in this matter. There were written public comments filed in advance of the hearing. The main issue raised in the written comments is the loss of prime agricultural farmland for solar development. Pursuant to a procedural schedule established on October 28, 2022, Thoroughbred Solar responded to two rounds of discovery. A site visit was held on October 20, 2022. Siting Board consultant, Harvey Economics (Harvey), filed its report (Harvey Report) on February 3, 2023. Thoroughbred Solar submitted its response to the Harvey Report on February 13, 2023. As provided by KRS 278.712(1), a local public hearing was held on January 25, 2023, at which multiple

public comments were made that focused on the loss of prime agricultural land, the impact of the project on the Green River, and scenic concerns. A formal hearing was held on February 21, 2023. Additional public comments were made at the formal hearing. Thoroughbred Solar filed its responses to post-hearing requests for information on March 10, 2023. 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 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 Thoroughbred 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 suggested by Thoroughbred 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 includes (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 will meet 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 Thoroughbred Solar; and (8) whether Thoroughbred Solar has good environmental compliance history.

# PROPOSED FACILITY

The Project will be located on 530 acres in an unincorporated area of Hart County near Munfordville and Rowletts, Kentucky. The Project will contain approximately 130,000 solar photovoltaic panels with associated ground-mounted racking, 15 inverters, and a substation transformer. The Project will tap into an overhead 69 kV transmission line owned by East Kentucky Power Cooperative, Inc (EKPC).<sup>1</sup>

# DISCUSSION AND FINDINGS

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

Mitigation Measures Proposed by Thoroughbred Solar and Siting Board Consultant

As required by KRS 278.708(4), Thoroughbred Solar proposed various mitigation measures consistent with the statutes regarding traffic, noise, roadway preservation, permitting, setbacks, public safety, karst and water protection, and scenic preservation.<sup>2</sup> In accordance with KRS 278.708(5), Harvey recommended mitigation measures in the

<sup>&</sup>lt;sup>1</sup> Application and Table of Contents (Application) at 1–2 (filed Oct. 12, 2022).

<sup>&</sup>lt;sup>2</sup> Application, Exhibit 12, SAR at 19-20.

following areas: site development planning; compatibility with scenic surroundings; noise levels during construction and operation; road traffic and degradation; economic impacts; decommissioning; public outreach; and complaint resolution programs.<sup>3</sup>

Thoroughbred Solar generally agreed with the mitigation measures recommended by Harvey.<sup>4</sup> Thoroughbred Solar stated the recommendation regarding the planting of vegetation should be limited to six feet instead of Harvey's eight feet recommendation.<sup>5</sup> Thoroughbred Solar also stated complaints about glare from the panels should be addressed through the complaint resolution program.<sup>6</sup> Thoroughbred Solar also argued construction noise mitigation should be limited to 400 feet from the site instead of the 1,500 feet recommended by Harvey.<sup>7</sup>

The Siting Board has reviewed the mitigation measures proposed by Thoroughbred Solar and Harvey, and finds that, in addition to those Thoroughbred Solar 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 Harvey Report in accordance with KRS 278.708.

## <u>Detailed Site Description</u>

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,

<sup>&</sup>lt;sup>3</sup> Harvey Report, SAR Review, Part A, Exhibit 5-1 at V-60–V-66 (filed Feb. 3, 2023).

<sup>&</sup>lt;sup>4</sup> Thoroughbred Solar's Response to Consultant Report (filed Feb. 13, 2023).

<sup>&</sup>lt;sup>5</sup> Thoroughbred Solar's Response to Consultant Report at 2.

<sup>&</sup>lt;sup>6</sup> Thoroughbred Solar's Response to Consultant Report at 3.

<sup>&</sup>lt;sup>7</sup> Thoroughbred Solar's Response to Consultant Report at 4.

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.

Thoroughbred Solar submitted the required SAR with its application.<sup>8</sup> The application contained a site plan.<sup>9</sup> The site plan included the existing roadways, project boundaries, transmission lines, gas pipelines, proposed solar array, proposed access roads and facility entrances, setbacks, inverters, proposed fencing, wetland features, proposed substation, proposed switchyard, and proposed maintenance facility.<sup>10</sup> Thoroughbred Solar also provided the location of actual and possible karst features within and surrounding the proposed project site.<sup>11</sup> Proposed vegetative screening plans were included in the SAR.<sup>12</sup> The legal boundaries of the proposed site are contained in the application and in maps of tax parcels.<sup>13</sup> Currently, the leases for the property the Project will be sited on are held by Leeward Renewable Energy.<sup>14</sup>

Security fences meeting the National Electric Safety Code (NESC) will enclose the site.<sup>15</sup> The gates will be locked at all times. The Project's substation and utility switchyard

<sup>&</sup>lt;sup>8</sup> See SAR, Attachments A–Q.

<sup>&</sup>lt;sup>9</sup> SAR, Attachment A.

<sup>&</sup>lt;sup>10</sup> SAR, Attachment A.

<sup>&</sup>lt;sup>11</sup> SAR, Attachment D.

<sup>&</sup>lt;sup>12</sup> Harvey Report, Part A, Exhibit 5-1, at V-7.

<sup>&</sup>lt;sup>13</sup> SAR, Attachment B.

<sup>&</sup>lt;sup>14</sup> Hearing Video Testimony (HVT) of the February 21, 2023 Hearing at 01:35:50.

<sup>&</sup>lt;sup>15</sup> SAR at 4.

will each be separately enclosed with 7-foot-tall fencing.<sup>16</sup> Thoroughbred Solar does not anticipate requiring auxiliary power during construction or operation. If auxiliary power is needed, it will be received from EKPC.<sup>17</sup>

The proposed site was designed to meet the requirements of the Kentucky Energy and Environment Cabinet (EEC) regarding stormwater management. Stormwater quantity calculations for the site were prepared using HydroCAD. During Construction, the rate control requirements for a permit from the EEC. During construction, best management practices will be used for water runoff. The vegetation that will be planted under the solar array will control runoff and erosion during operations of the project.

The surrounding area is primarily rural agricultural land with scattered residential properties. The land use in the area is 89 percent agricultural, 6.5 percent is forested, and approximately 4 percent is infrastructure corridors.<sup>23</sup> There are three residential neighborhoods within the two-mile radius surrounding the proposed Project. There are no schools, hospitals, or nursing homes within the two-mile radius of the project site.<sup>24</sup>

<sup>&</sup>lt;sup>16</sup> SAR at 4.

<sup>&</sup>lt;sup>17</sup> SAR at 9.

<sup>&</sup>lt;sup>18</sup> SAR, Attachment M at 6.

<sup>&</sup>lt;sup>19</sup> SAR, Attachment M at 11.

<sup>&</sup>lt;sup>20</sup> SAR, Attachment M at 11

<sup>&</sup>lt;sup>21</sup> HVT at 02:49:53.

<sup>&</sup>lt;sup>22</sup> SAR, Attachment M at 11.

<sup>&</sup>lt;sup>23</sup> Harvey Report, Part A, at III-5.

<sup>&</sup>lt;sup>24</sup> Harvey Report, Part A, at III-8.

Having reviewed the record of this proceeding, the Siting Board finds that Thoroughbred 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 that it necessary to impose specific mitigation measures and requirements related to the description of the facility and the proposed site development plan. The Siting Board will require that Thoroughbred Solar keep the Siting Board apprised of changes throughout the development of the Project and, as such, will order Thoroughbred 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. The Siting Board will also require Leeward Renewable Energy to assign the leases to Thoroughbred Solar to ensure that the entity responsible for the mitigation measures is also the entity that holds the leases for the property to be used in the Project. Furthermore, based on the findings and proposals of the Harvey Report, the Siting Board finds that additional mitigation measures are required. These mitigation measures are outlined in Appendix A to this Order and, in particular, mitigation measures 1 through 8.

# Compatibility with Scenic Surroundings

Thoroughbred Solar indicated that the Project site is in an agricultural and forested area of Hart County.<sup>25</sup> The site is located on open, rolling terrain.<sup>26</sup> The view will be impacted primarily by solar panels.<sup>27</sup> Thoroughbred Solar has indicated it will mitigate

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<sup>&</sup>lt;sup>25</sup> Application, Exhibit 12, SAR at 2.

<sup>&</sup>lt;sup>26</sup> SAR at 11.

<sup>&</sup>lt;sup>27</sup> SAR at 11.

the visual impacts of the facility by the topography of the land, vegetative buffers, the proposed setbacks, and antireflective treatments to the panels.<sup>28</sup> The security fence will primarily be woven-wire to blend in with local surroundings, except around the substation and switchyard, which will be chain link.<sup>29</sup> Harvey concluded the facility will be compatible with the scenic surroundings with vegetative buffers and other proposed mitigation.<sup>30</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 will be minimal. The proposed vegetative buffer, along with other mitigation measures proposed by Thoroughbred Solar and Harvey, will minimize the effect 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 Thoroughbred Solar. Those are set forth in Appendix A to this Order and, in particular, mitigation measures 9 through 13.

# Impact on Property Values

Thoroughbred Solar submitted a property value impact report conducted by CohnReznick LLP (CohnReznick).<sup>31</sup> CohnReznick completed a paired sales analysis and a comparative study analyzing data from numerous solar facilities across the country of property values near solar facilities, and determined that this Project would not have an impact on the property values of abutting or adjacent residential or agricultural properties.<sup>32</sup> CohnReznick found no negative impact to property value for properties near

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<sup>&</sup>lt;sup>28</sup> SAR at 11.

<sup>&</sup>lt;sup>29</sup> SAR 11.

<sup>&</sup>lt;sup>30</sup> Harvey Report, Section 2, at II-4.

<sup>&</sup>lt;sup>31</sup> See SAR, Attachment J.

<sup>&</sup>lt;sup>32</sup> SAR, Attachment J, at 135.

a solar farm, in either the short or long term.<sup>33</sup> CohnReznick indicated that the solar facility would function in a harmonious manner with the nearby surroundings, which is mostly agricultural, 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.<sup>34</sup>

Harvey conducted further analysis of the data provided by CohnReznick.<sup>35</sup> Harvey reviewed different studies related to the value of property near a merchant solar generating facility and found that the overall conclusion of those studies was that solar facilities do not negatively impact property values.<sup>36</sup> Harvey also met with the Hart County Judge Executive who indicated that public awareness of the proposed solar Project is high because of Thoroughbred Solar's community outreach.<sup>37</sup> The Hart County Judge Executive also noted that two local landowners with properties near the Project site have expressed a general opposition to the Project.<sup>38</sup> Harvey concluded that the current research indicates that the existence of solar facilities does not negatively influence property values for adjacent landowners and there is no expected change in property

<sup>&</sup>lt;sup>33</sup> SAR, Attachment J, at 135.

<sup>&</sup>lt;sup>34</sup> SAR, Attachment J, at 127.

<sup>&</sup>lt;sup>35</sup> Harvey Report, Section 2, at II-4.

<sup>&</sup>lt;sup>36</sup> Harvey Report, Section 5, at V-19-21.

<sup>&</sup>lt;sup>37</sup> Harvey Report, Section 5, at V-10.

<sup>&</sup>lt;sup>38</sup> Harvey Report, Section 5, at V-10-11.

values due to the Thoroughbred Solar Project.<sup>39</sup> Harvey stated that mitigation of the visual impacts of the Project could minimize uncertainties related to property values.<sup>40</sup>

Having reviewed the record, the Siting Board finds that sufficient evidence to conclude that the proposed Thoroughbred Solar facility will not have any significant adverse impact on nearby property values as long as proper mitigation measures are implemented. The characteristics of the solar facility's operations are passive, and the facility will be temporary, with the land returned to its natural state after a few decades of operation. The facility does not produce any air, noise, waste, or water pollution, nor does it create any traffic issues during operations.

#### Anticipated Noise Level

Thoroughbred Solar's construction and operational noise assessment was completed by RSG. 41 Construction of the Project will be conducted in phases beginning with site preparation and progressing to the installation of equipment. Construction of a solar facility typically includes the following: road construction, substation construction, trenching, inverter construction, piling, racking, laydown area, boring, and rock drilling 42 Heavy equipment generally used during site development includes excavating and grading equipment, bulldozers, trenchers, forklifts, drills, rollers and trucks. 43 RSG used representative sound levels for construction equipment from the National Cooperative Highway Research Program, except for pile drivers for which noise data for a

<sup>&</sup>lt;sup>39</sup> Harvey Report, Section 2, at II-4.

<sup>&</sup>lt;sup>40</sup> Harvey Report, Section 5 at V-21-22.

<sup>&</sup>lt;sup>41</sup> SAR, Attachment G, Thoroughbred Solar Sound Modeling Study.

<sup>&</sup>lt;sup>42</sup> SAR, Attachment G, Table 4 at 12.

<sup>&</sup>lt;sup>43</sup> SAR, Attachment G, Table 4 at 12.

representative solar array post driver was used.<sup>44</sup> Typical noise levels produced by construction equipment can range from 92 dBA (rock drilling) to 74 dBA (flatbed trucks and cranes) at 50 feet from the source. The maximum sound levels at 280 feet are estimated to be 77 dBA.<sup>45</sup>

RSG used the World Health Organization (WHO) guidelines as its standard to assess construction noise.<sup>46</sup> The WHO guidelines suggest a daytime noise level of 55 dBA to protect against serious annoyance.<sup>47</sup> The WHO recommends nighttime noise levels of 45 dBA to protect against annoyance and sleep disturbance.<sup>48</sup> Based on the WHO guidelines, RSG used a daytime sound level of 50 dBA and a nighttime sound level of 45 dBA as Project design benchmarks.<sup>49</sup> RSG estimated the sound levels from the construction equipment will range from 62 dBA (trenching) to 58 dBA (boring and road construction) at 1,500 feet using the assumption that the equipment is operating simultaneously.<sup>50</sup>

In the sound mapping, RSG found 79 residential noise receptors within 1,320 feet of the Project area.<sup>51</sup> RSG found only rock drilling, 62 dBA, and horizontal directional

<sup>&</sup>lt;sup>44</sup> SAR, Attachment G at 11–12; Thoroughbred Solar's Response to Siting Board Staff's First Request for Information (Staff's First Request) (filed Nov. 21, 2022), Item 36. *See also* HVT at 02:28:55–02:29:16.

<sup>&</sup>lt;sup>45</sup> SAR, Attachment G, Table 3 at 11–12.

<sup>&</sup>lt;sup>46</sup> SAR, Attachment G at 4.

<sup>&</sup>lt;sup>47</sup> SAR, Attachment G at 4.

<sup>&</sup>lt;sup>48</sup> SAR, Attachment G at 4.

<sup>&</sup>lt;sup>49</sup> SAR, Attachment G at 5.

<sup>&</sup>lt;sup>50</sup> Thoroughbred Solar's Response to Staff's First Request, Item 37, Updated Table 4.

<sup>&</sup>lt;sup>51</sup> Application, Exhibit 12, Attachment G, Thoroughbred Solar Sound Modeling Study at 2 and 6.

drilling, 57 dBA, had sound levels greater than 55 dBA at 1,500 feet.<sup>52</sup> All other construction equipment had sound levels below 55 dBA. The small pile driver had a sound level of 54 dBA at 1,500 feet.<sup>53</sup> Based upon RSG's analysis, Thoroughbred Solar proposed several noise mitigation measures to reduce construction noise levels at noise-sensitive locations.<sup>54</sup>

During the operations phase of the Project, RSG found noise will emanate from the 15 inverters, the substation transformer, and solar panel tracking motors.<sup>55</sup> RSG's analysis for construction noise assumed that the inverters, tracking motors, and substation were always running. RSG used maximum sound emission levels during daylight hours of 96 dBA for an inverter, 70 dBA for a tracking motor, and 95 dBA for a substation transformer.<sup>56</sup> RSG found that residences in the Project area will experience daytime sound levels ranging from 26 dBA to 41 dBA. Nighttime sound levels will range from 24 dBA to 41 dBA. Only a single residential household will experience a sound level of 41 dBA during operations.<sup>57</sup>

Harvey evaluated the noise study conducted by RSG. Harvey found the construction phase noise is likely to be troublesome to nearby residents during the day. Noise from equipment during the operations phase is anticipated to result in small, if any,

<sup>&</sup>lt;sup>52</sup> Thoroughbred Solar's Response to Staff's First Request, Item 37, Updated Table 4. Also see Thoroughbred Solar's Response to Siting Board Staff's Second Request for Information (Staff's Second Request) (filed Jan. 9, 2023), Item 7, Exhibit 4.

<sup>&</sup>lt;sup>53</sup> Thoroughbred Solar's Response to Staff's First Request, Item 37, Updated Tables 3.

<sup>&</sup>lt;sup>54</sup> Thoroughbred Solar's Response to Staff's First Request, Item 6 and Item 38.

<sup>55</sup> SAR, Attachment G at 7.

<sup>&</sup>lt;sup>56</sup> SAR, Attachment G, Table 1 at 8.

<sup>&</sup>lt;sup>57</sup> SAR, Attachment G, Table 2 at 8 and Table 8 at 23.

increases to the local ambient sound environment. Harvey concluded that limiting construction hours, along with topography and existing vegetation, may help mitigate noise in some areas.<sup>58</sup>

Thoroughbred Solar objected to Harvey's noise mitigation recommendation of requiring sound mitigation methods for noise sensitive receptors within 1,500 feet of the Project. Thoroughbred Solar argued that the mitigation measure requiring a 1,500-foot noise buffer that was required in other Siting Board cases should not be required in this case because those companies used a louder pile driver than Thoroughbred Solar will use during construction. Based upon the quieter sound levels produced by the small pile driver, Thoroughbred Solar argued it should only be required to mitigate construction noise to a distance of 400 feet. Thoroughbred Solar stated the noise data used in the other projects before the Siting Board used noise data from the Federal Highway Administration or National Cooperative Highway Research Program, which is sound data for road construction and uses a different type of pile driver. Thoroughbred Solar used this fact to assume other projects will be using louder pile drivers than those planned for this Project.

The Siting Board finds that noise from the construction phase will be intermittent and temporary but will be significant to the nearest residences. As indicated by both

<sup>&</sup>lt;sup>58</sup> Harvey Report, Section 5 at V31-32.

<sup>&</sup>lt;sup>59</sup> Thoroughbred Solar's Response to the Harvey Economics Report at 4.

<sup>&</sup>lt;sup>60</sup> Thoroughbred Solar's Response to the Harvey Economics Report, at 4. *Also see* HVT at 02:24:14–2:24:29.

<sup>61</sup> HVT at 02:17:50-02:19:39.

<sup>62</sup> HVT at 02:20:33-02:20:55.

Thoroughbred Solar and Harvey, the noise will be loudest during the pile driving phase of the construction but will not be permanently damaging to nearby residents. The Siting Board further finds that the operational noise from the solar inverters, substations, transformers, and tracking motors should have little-to-no effect on residences in the area.

Based on the case record, the Siting Board finds that Thoroughbred Solar's application is in compliance with the statutory requirements in disclosing noise levels. However, the Siting Board further finds that based on the entire record, to ensure the impact of construction noise does not unduly impact nearby residents, Thoroughbred Solar should be required to implement specific mitigation measures to ensure the impact of construction noise does not unduly impact nearby residents. The mitigation measures implemented by the Siting Board 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. The Siting Board is not persuaded by Thoroughbred Solar's argument that it knows the type of pile drivers that other solar developments have used, and it has chosen a quieter type. Even if this is a correct assumption about the pile drivers, the Siting Board will require Thoroughbred Solar to mitigate construction noise up to 1,500 feet because other equipment used in conjunction with the pile driving will produce sound that is significant to nearby residences. Thoroughbred Solar may forego noise suppression if it employs a panel installation method that does not involve pile driving, so long as the method does not produce noise levels similar to pile driving. These mitigation measures are further outlined in Appendix A to this Order and, in particular, mitigation measures 14 through 16.

# Impact on Roads, Railways, and Fugitive Dust

Construction is expected to take approximately 12 months.<sup>63</sup> During that time there will be intermittent and temporary impacts on traffic flow on roads near the Project.<sup>64</sup> G Wilson Lane, Johns Lane, State Highway 335, Maple Grove Lane, and Rowletts Cave Springs Road are the roads that will have the largest increase in traffic.<sup>65</sup> Thoroughbred Solar does not anticipate any change to the operational level of the surrounding roads during the construction phase of the Project.<sup>66</sup> The Project will not use railways during construction or operation.<sup>67</sup>

Harvey found there would be noticeable increases in traffic volumes on local roads during the construction phase. This is partially due to the low amount of traffic on the local roads prior to construction, making any increase in traffic noticeable.<sup>68</sup> Harvey also indicated that due to the nature of some of the local roads, drivers will have to pull over for large vehicles or construction deliveries.<sup>69</sup>

The operational phase will have little impact on roads and traffic due to the small number of employees working on-site during operation.<sup>70</sup>

<sup>&</sup>lt;sup>63</sup> SAR at 16.

<sup>&</sup>lt;sup>64</sup> SAR at 17.

<sup>&</sup>lt;sup>65</sup> SAR, Exhibit 12, Attachment K at 1.

<sup>&</sup>lt;sup>66</sup> SAR at 17.

<sup>&</sup>lt;sup>67</sup> SAR at 16.

<sup>&</sup>lt;sup>68</sup> Harvey Report, Section 2, at II-5.

<sup>&</sup>lt;sup>69</sup> Harvey Report, Section 5, at V-45.

<sup>&</sup>lt;sup>70</sup> Harvey Report, Section 5, V-40.

The Siting Board finds that traffic and road degradation issues can be addressed with Thoroughbred Solar's mitigation measures, the additional mitigation measures proposed by Harvey, and mitigation measures set forth in Appendix A to this Order and, in particular, mitigation measures 18 through 26.

The Siting Board anticipates some fugitive dust from the construction phase. Thoroughbred Solar stated it will mitigate the dust from construction by revegetation, covering soil piles, and application of water as necessary. Dust will not be a factor during the operations phase. The Siting Board requires additional mitigation to reduce any potential harmful effects on the area, which are outlined in Appendix A to this Order. The Siting Board will require Thoroughbred Solar to inform the Siting Board and the EEC of the date construction will commence 30 days prior to ensure the proper permits have been obtained and whether proper steps have been taken to comply with the mitigation measures set forth in Appendix A to this Order.

# II. KRS 278.710(1) - Criteria

# Economic Impact on Affected Region and the State

Thoroughbred Solar estimated the Project will invest over \$98.3 million in Hart County and the state of Kentucky.<sup>72</sup> The Project is expected to generate significant positive economic and fiscal impacts to both Hart County and the state of Kentucky; including the creation of construction jobs, expansion of the local tax base, and the benefit of having a long-term employer and responsible corporate citizen in the region.<sup>73</sup>

<sup>&</sup>lt;sup>71</sup> Application, Exhibit 12, SAR at 17.

<sup>&</sup>lt;sup>72</sup> Application, Exhibit 10 at 5.

<sup>&</sup>lt;sup>73</sup> Application, Exhibit 10 at 5.

Thoroughbred Solar's economic consultant, Dr. Gilbert Michaud, used the Jobs and Economic Development Impact (JEDI) model to conduct a state-level economic impact analysis.<sup>74</sup> During Project construction, Thoroughbred Solar estimated that approximately 141 temporary full-time jobs will be created in Kentucky, with a direct payroll of approximately \$10.34 million and \$11.11 million in increased economic activity.<sup>75</sup> The indirect and induced economic impacts of construction are estimated to contribute another 153 jobs with an additional \$9.08 million in payroll and \$13.17 million in increased economic activity.<sup>76</sup> The total construction phase economic impact is estimated to be 294 total full-time equivalent jobs in Kentucky with a new payroll of \$19.43 million and an economic impact (excluding tax revenues) of \$25.28 million.<sup>77</sup>

During Project operations, Thoroughbred Solar estimated that four full-time jobs will be created with a direct payroll of approximately \$415,900 and an economic impact of approximately \$615,700.<sup>78</sup> The indirect and induced economic impacts are estimated to contribute approximately another three jobs with an additional \$180,300 in payroll and \$297,100 in increased economic activity.<sup>79</sup> The total operations phase economic impact is estimated to be seven total full-time equivalent jobs in Kentucky with a new payroll of \$596,200 and an economic impact of \$912,800.<sup>80</sup>

<sup>&</sup>lt;sup>74</sup> Application, Exhibit 10, Table 3 at 10.

<sup>&</sup>lt;sup>75</sup> Application, Exhibit 10, Table 3 at 10.

<sup>&</sup>lt;sup>76</sup> Application, Exhibit 10, Table 3 at 10.

<sup>&</sup>lt;sup>77</sup> Application, Exhibit 10, Table 3 at 10.

<sup>&</sup>lt;sup>78</sup> Application, Exhibit 10, Table 4 at 10.

<sup>&</sup>lt;sup>79</sup> Application, Exhibit 10, Section 2.3 and Table 4 at 10.

<sup>80</sup> Application, Exhibit 10, Section 2.3 and Table 4 at 10.

Thoroughbred Solar intends to negotiate an Industrial Revenue Bond (IRB) and a Payment in Lieu of Taxes (PILOT) Agreement with Hart County.<sup>81</sup> If an IRB and PILOT Agreement are not made, Thoroughbred Solar estimated it will pay approximately \$3.1 million in property tax over the life of the Project, \$1.4 million in state taxes, and \$1.7 million in local taxes.<sup>82</sup> Thoroughbred Solar estimated it will pay \$20.02 million in state income tax during the construction phase of the Project. Thoroughbred Solar estimated it expects to pay \$750,000 in state income tax and \$17,000 in local income tax during the operation phase of the Project.<sup>83</sup> Thoroughbred Solar also expects to pay occupational taxes in Hart County.<sup>84</sup>

Thoroughbred Solar did not conduct an economic impact analysis for construction or operations at the county level. Thoroughbred Solar indicated it could not conduct an economic analysis at the county level because the relevant data does not exist. Thoroughbred Solar stated that state-level analysis is the best modeling available.<sup>85</sup>

Thoroughbred Solar presented documents and material in public information meetings that indicated there would be hundreds of temporary construction jobs created for Hart County.<sup>86</sup> This contrasts with the 141 estimated jobs in the economic impact analysis.<sup>87</sup> Thoroughbred Solar stated it will fill as many of the construction and

<sup>&</sup>lt;sup>81</sup> Application, Exhibit 10, at 11 and Thoroughbred Solar's Response to Staff's First Request, Item 58.

<sup>82</sup> Thoroughbred Solar's Response to Staff's Second Request, Item 16.

<sup>83</sup> Thoroughbred Solar's Response to Staff's Post-Hearing Request (filed Mar. 10, 2023), Item 7.

<sup>&</sup>lt;sup>84</sup> Thoroughbred Solar's Response to Staff's Post-Hearing Request, Item 7.

<sup>85</sup> Thoroughbred Solar's Response to Staff's Post-Hearing Request, Item 8a.

<sup>&</sup>lt;sup>86</sup> Application, Exhibit 6, Attachment A-1 at 6.

<sup>&</sup>lt;sup>87</sup> Application, Exhibit 10, Table 3 at 10.

operational jobs as possible with qualified workers from Hart County but did not indicate a reason the figures differ.<sup>88</sup>

Based upon the case record, the Siting Board finds that the Project will have a positive economic impact on both the state of Kentucky and Hart County. However, the Siting Board is concerned about Thoroughbred Solar's lack of county-level economic impact modeling and the public statements about the Project. The Siting Board is aware of county-level economic data that has been used in JEDI modeling and could have been used in these proceedings to better represent the economic impact of the Project. The Siting Board is also concerned about the public information that was provided boasting about hundreds of local jobs, but then used a far lower number in the modeling. The impression of hundreds of local jobs without providing a local economic analysis leaves questions about the accuracy of the data presented to the Siting Board, the local officials, and the public. The conflicting information provided by Thoroughbred Solar also gives the impression that the economic impact analysis was done simply to meet the statutory filing requirement and not to present a complete picture of the economic impacts to the Siting Board.

# **Existence of Other Generating Facilities**

Thoroughbred Solar indicated there are no existing facilities near the proposed site that generate electricity.<sup>89</sup> Thoroughbred Solar stated that the Project was sited in a

<sup>&</sup>lt;sup>88</sup> Thoroughbred Solar's Response to Staff's Post-Hearing Request, Item 8b and Thoroughbred Solar's Response to Staff's First Request, Item 54.

<sup>&</sup>lt;sup>89</sup> Application, Exhibit 7 at unnumbered page 1.

location with proximity to existing transmission infrastructure, <sup>90</sup> and that the Project will tap into an existing EKPC 69 kV transmission line. <sup>91</sup>

# Local Planning and Zoning Requirements

Hart County does not have any planning and zoning requirements applicable to the Project. The statutory requirements of KRS 278.706(2)(e) apply unless a deviation is applied for and granted by the Siting Board. KRS 278.706(2)(e) requires that all proposed structures or facilities used for generation of electricity must be 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility. This Project will be closer than that to residences, but there are no schools, hospitals, or nursing homes within 2,000 feet. 93

# Impact on Transmission System

The Project is located within the territory of the PJM Interconnection LLC (PJM). Thoroughbred Solar filed an application with PJM to interconnect the Project to a 69 kV transmission line owned by EKPC.<sup>94</sup> PJM has conducted a feasibility study and system impact study.<sup>95</sup> The Project is still undergoing a facilities study.<sup>96</sup> Thoroughbred Solar was required to undergo an affected systems study by Louisville Gas & Electric Company

<sup>&</sup>lt;sup>90</sup> Application, Exhibit 7 at unnumbered page 1.

<sup>&</sup>lt;sup>91</sup> Application, Exhibit 7 at unnumbered page 1.

<sup>&</sup>lt;sup>92</sup> Application at 3.

<sup>&</sup>lt;sup>93</sup> Application at 3 and Application, Exhibit 5 at unnumbered pages 2–3.

<sup>&</sup>lt;sup>94</sup> Application, Exhibit 9 at unnumbered page 2.

<sup>&</sup>lt;sup>95</sup> See Application, Exhibit 9, Attachments 1 and 2 for the full studies completed by PJM.

<sup>&</sup>lt;sup>96</sup> Application, Exhibit 9 at unnumbered page 2.

and the Tennessee Valley Authority, and no overloads or upgrades were required based on the studies.<sup>97</sup>

Based upon the case record, the Siting Board finds that Thoroughbred Solar has satisfied the requirements of KRS 278.710(f) and that the additional load imposed upon the electricity transmission system by the generation of electricity at the Thoroughbred Solar facility will not adversely affect the reliability of service for retail customers of electric utilities regulated by the Kentucky Public Service Commission. This finding is based upon Thoroughbred Solar's commitment to the interconnection process and protocols consistent with the requirements of KRS 278.212.

Thoroughbred Solar has not filed an application for a nonregulated transmission line. Thoroughbred Solar indicated the Project substation will be located adjacent to the existing EKPC 69 kV overhead transmission line.<sup>98</sup> The Project will interconnect to EKPC's 69 kV transmission line with a 100-foot tap.<sup>99</sup> The Siting Board finds that Thoroughbred Solar does not have to file a separate application for the nonregulated transmission line and approves of the 100-foot tap into the EKPC 69 kV transmission line.

# Compliance with Setback Requirements

There are no applicable setbacks established by Hart County for the Project. KRS 278.706(2)(e) requires that all proposed structures or facilities used for electric generation be at least 2,000 feet from any residential neighborhood, school, hospital, or

<sup>&</sup>lt;sup>97</sup> Application, Exhibit 9 at unnumbered page 2.

<sup>98</sup> SAR at 8.

<sup>&</sup>lt;sup>99</sup> SAR at 8 and Thoroughbred Solar's Response to Staff's First Request, Item 5.

nursing home facility.<sup>100</sup> KRS 278.704(4) authorizes the Siting Board to grant a deviation from the setback requirements if requested.<sup>101</sup> Thoroughbred Solar has requested a deviation from the setback requirements in KRS 278.706(2)(e).<sup>102</sup> Thoroughbred Solar stated there are three groupings of homes that qualify as a residential neighborhood.<sup>103</sup> Thoroughbred Solar stated that it would not place panels closer than 300 feet, the central inverter no closer than 800 feet, and the substation no closer than 3,000 feet from any of the residences in the neighborhoods.<sup>104</sup>

The Siting Board finds that given the totality of the mitigation measures proposed by Thoroughbred Solar, the nature of the surrounding property, and the mitigation measures the Siting Board has imposed in Appendix A, the statutory purposes are met by the Project. The Siting Board grants a deviation from this requirement as to the distance to residences and residential neighborhoods as requested by motion and set forth in Appendix A to this Order, mitigation measure 17. Exceptions to these setback requirements for participating landowners are included in Appendix A, mitigation measure 17.

# History of Environmental Compliance

No information appears in the record of any environmental violations.

Thoroughbred Solar stated that neither it, nor anyone with an ownership interest in it, has

<sup>100</sup> KRS 278.706(2)(e).

<sup>&</sup>lt;sup>101</sup> KRS 278.704(4).

<sup>&</sup>lt;sup>102</sup> Thoroughbred Solar's Motion for Deviation from Setback Requirement (Motion for Deviation) (filed Oct. 14, 2022).

<sup>&</sup>lt;sup>103</sup> Motion for Deviation at 2.

<sup>&</sup>lt;sup>104</sup> Motion for Deviation at 13.

violated any environmental laws, rules, or administrative regulations that resulted in criminal confiscation, or a fine greater than \$5,000.<sup>105</sup> Further Thoroughbred Solar is not the subject of any pending judicial or administrative actions.<sup>106</sup>

# Transfer of Ownership

Solar developments are often sold to other companies during the planning, construction, and operation of projects. When a Certificate to Construct a solar facility is sought, the project and the developers are thoroughly evaluated to ensure that the project will comply with all statutory and regulatory requirements. After the review, the Construction Certificate is conditionally granted on the condition of full compliance with all mitigation measures, some of which continue into the operation of the project. As noted in the preceding section, the Siting Board not only reviews the history and abilities of the Person<sup>107</sup> seeking the Certificate, but also the entities that have an ownership interest in the applicant. Here, as in all cases filed with the Siting Board since 2020, the applicant has no resources or employees of its own, and instead depends on the resources and employees of affiliates or entities with an ownership interest in it. Without those other entities, Thoroughbred Solar would not have the managerial, technical or financial capability necessary to construct or operate the facility, nor to comply with the conditions required herein. As such, the Siting Board will require approval of the transfer of ownership or control of Thoroughbred Solar, the Person seeking and being granted,

<sup>&</sup>lt;sup>105</sup> Application, Exhibit 11 at unnumbered page 2.

<sup>&</sup>lt;sup>106</sup> Application, Exhibit 11 at unnumbered page 2.

<sup>&</sup>lt;sup>107</sup> KRS 278.700(3) defines a person as any individual, corporation, public corporation, political subdivision, governmental agency, municipality, partnership, cooperative association, trust, estate, two (2) or more persons having a joint or common interest, or any other entity.

with conditions, the Construction Certificate in this matter. Without knowledge of who is providing the resources and employees to Thoroughbred Solar to ensure ongoing compliance with the measures required herein, there is no way to ensure the requirements are adhered to throughout the life of the Project. To be clear, this condition does not apply to the actual transfer of the facility, but rather the transfer of ownership or control of the Person holding the Certificate to Construct. The measures related to the transfer of ownership or control of the Person holding the Construction Certificate are set forth more fully in Appendix A, mitigation measure 27.

# **Decommissioning**

Thoroughbred Solar submitted a decommissioning plan with the application.<sup>108</sup> The applicable property leases contain covenants to the property owners regarding decommissioning.<sup>109</sup> However, Thoroughbred Solar's decommissioning plan states that it will only decommission to a depth of three feet.<sup>110</sup> Thoroughbred Solar indicated that it would comply with the leases to remove all project components.<sup>111</sup>

The Siting Board finds that Thoroughbred Solar must return the land to its original use, to the extent possible, at the end of the Project's life. Returning the land back to its original state and use after decades of operation is an important part of the Siting Board's finding regarding the impact of the facilities on scenic surroundings, property values, and the economy. The relatively "temporary" nature of the facilities compared to other types

<sup>&</sup>lt;sup>108</sup> SAR, Attachment Q.

<sup>&</sup>lt;sup>109</sup> HVT at 09:57:01.

<sup>&</sup>lt;sup>110</sup> SAR, Attachment Q at 5.

<sup>&</sup>lt;sup>111</sup> HVT at 09:57:20.

of more permanent development, such as thermal merchant generation facilities, industrial operations, or housing, is a prime consideration of the Siting Board in granting a certificate, with conditions, in this matter. An inability or unwillingness to return the land back to its prior state after the life of the facility, including leaving underground facilities in excess of three feet, increases the permanence of the facility. As such, the Siting Board requires the removal of all components above and below ground. Removal of all underground components and regrading or recompacting the soil for agricultural use will mitigate any damage to the land, thus returning the land to a state that provides at least as great of an economic impact as it does today. The Siting Board will also require additional mitigation measures related to decommissioning, which are outlined in Appendix A to this Order, mitigation measures 28 through 32.

# CONCLUSION

The Siting Board is a creature of statute and has only such powers as have been granted to it by the General Assembly. Thus, the Siting Board's consideration of an application for a Construction Certificate is limited to the factors enacted by the General Assembly in KRS 278.110(1)(a)–(i), which have been discussed throughout this Order. The Siting Board does not have the statutory authority to consider the best use of land or to select a different location for the Project. The Siting Board notes that there have been written public comments regarding the Project. The Siting Board has reviewed all the written comments and has listened to comments at the public meeting and the hearing. Many of the comments raise the concern that the Project is to be constructed on farmland, which will not be used for crop production. Concerns have also been voiced about the proximity of the Project to the Green River and potential for contamination. Although the

public comments indicate displeasure with the Project, the scope of the Siting Board's authority is whether this Project meets the requirements of KRS 278.110(1)(a)–(i) based upon the case record.

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that Thoroughbred 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 attached to this Order as Appendix B.

#### IT IS THEREFORE ORDERED that:

- 1. Thoroughbred Solar's application for a Construction Certificate to construct an approximately 50-MW merchant solar electric generating facility in Hart County, Kentucky, is conditionally granted subject to full compliance with the mitigation measures and conditions prescribed in Appendix A to this Order.
- 2. Thoroughbred Solar shall fully comply with the mitigation measures and conditions prescribed in Appendix A to this Order.
- 3. Thoroughbred Solar's October 13, 2022 motion for deviation from setback requirements is granted subject to the mitigation measures and conditions prescribed in Appendix A to this Order.
- 4. Leeward Renewable Energy shall assign the leases for the property where the Project is to be sited to Thoroughbred Solar within 90 days of the date of service of this Order.

| 5.           | In the event mitigation measures within the body of this Order conflict with |
|--------------|--|
| those prescr | ibed in Appendix A to this Order, the measures in Appendix A shall control.  |

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

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Chairman, Public Service Commission

Vice Chairman, Public Service Commission

Commissioner, Public Service Commission

Secretary, Energy and Environment Cabinet, or ber designee

Secretary, Cabinet for Economic Development, or his designee

Robert Simms, ad hoc member

ATTEST:

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

**ENTERED** 

APR 10 2023

KENTUCKY PUBLIC SERVICE COMMISSION

#### APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2022-00115 DATED APR 10 2023

# MITIGATION MEASURES AND CONDITIONS IMPOSED

The following mitigation measures and conditions are hereby imposed on Thoroughbred Solar, LLC (Thoroughbred 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, transmission line route, 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 is likely to create a materially different pattern or magnitude of impacts.
- 4. Thoroughbred Solar shall provide the date construction will commence to the Siting Board and the Kentucky Energy and Environment Cabinet (EEC) 30 days prior to that date.
- 5. Prior to construction, Thoroughbred Solar shall provide a finalized Emergency Response Plan to the local fire district, first responders, and any County Emergency Management Agency. Thoroughbred Solar shall provide site specific training

for local emergency responders at their request. Access for fire and emergency units shall be set up after consultation with local authorities.

- 6. Thoroughbred 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.
- 7. Thoroughbred Solar's access control strategy shall also include appropriate signage to warn potential trespassers. Thoroughbred Solar must ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners.
- 8. The security fence must be installed prior to activation of any electrical installation work in accordance with NESC standards. The substation shall have its own separate security fence and locked access installed in accordance with NESC standards.
- 9. 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. Thoroughbred Solar will not remove any existing vegetation except to the extent it must remove such vegetation for the construction and operation of Project components.
- 10. Thoroughbred Solar shall implement planting of native evergreen species as a visual buffer to mitigate visual viewshed impacts, in areas where those viewshed impacts occur from residences or roadways directly adjacent to the Project and there is not adequate existing vegetation. If it is not adequate, then vegetation ten feet thick reaching six feet at maturity (in four years) will be added by Thoroughbred Solar between Project infrastructure and residences, or other occupied structures, with a line of sight to

Appendix A Case No. 2022-00115 the facility to the reasonable satisfaction of the affected adjacent property owners.

Planting of vegetative buffers may be done over the construction period; however,

Thoroughbred Solar should prioritize vegetative planting at all periods of construction to

reduce viewshed impacts. All planting shall be done prior to the operation of the facility.

11. Thoroughbred Solar shall cultivate at least two acres of native, pollinator

friendly species on-site.

12. Thoroughbred Solar shall carry out visual screening consistent with the plan

proposed in its application, SAR, and the maps included, and ensure that the proposed

new vegetative buffers are successfully established and developed as expected over

time. Should vegetation used as buffers die over time, Thoroughbred Solar shall replace

plantings as necessary.

13. To the extent that an affected adjacent property owner indicates to

Thoroughbred Solar that a visual buffer is not necessary, Thoroughbred Solar will obtain

that property owner's written consent and submit such consent in writing to the Siting

Board.

14. Thoroughbred Solar is required to limit construction activity, process, and

deliveries to the hours between 8 a.m. and 6 p.m. local time, Monday through Saturday.

The Siting Board directs that construction activities that create a higher level of noise,

such as pile-driving, will be limited to 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. local time, Monday through Sunday, including field visits, arrival,

departure, planning, meetings, mowing, surveying, etc.

Appendix A Case No. 2022-00115

- 15. If the pile-driving activity occurs within 1,500 feet of a noise-sensitive receptor, Thoroughbred 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). Thoroughbred 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. Thoroughbred Solar shall notify residents and businesses within 2,400 feet of the project boundary about the construction plan, the noise potential, any mitigation plans, and its Complaint Resolution Program referred to in Item 33 of this Appendix, at least one month prior to the start of construction.
- 17. Thoroughbred Solar shall place panels, inverters, and substation equipment consistent with the distances to noise receptors to which it has committed in its maps and site plans. The Siting Board approves Thoroughbred Solar's proposed setback from residences of 350 feet from any panel or string inverter. The Siting Board also approves a distance of 300 feet between any solar panel or string inverter and any residential neighborhood and 100 feet from any exterior property line. Nevertheless, Thoroughbred 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, or 50 feet from adjacent roadways. Thoroughbred Solar shall not place a central inverter, and if used, energy storage systems, closer than 450 feet from any adjacent residences, church, or school. 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 setbacks otherwise required herein.

All agreements by participating landowners to lesser setbacks must be filed with the Siting

Board prior to commencement of the Project.

18. Thoroughbred 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 control.

19. Thoroughbred Solar shall comply with all laws and regulations regarding the

use of roadways.

20. Thoroughbred 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 traffic delays during AM and PM peak

hours.

21. Thoroughbred Solar shall consult with the Kentucky Transportation Cabinet

(KYTC) regarding truck and other construction traffic and obtain necessary permits from

the KYTC.

22. Thoroughbred Solar shall consult with the Hart County Road Department

(HCRD) regarding truck and other construction traffic and obtain any necessary permits

from the HCRD.

23. Thoroughbred Solar shall develop special plans and obtain necessary

permits before transporting heavy loads, especially the substation transformer, onto state

or county roads.

Appendix A

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- 24. Thoroughbred 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 wight limits, and bridge weight limits.
- 25. Thoroughbred Solar shall develop and implement a traffic management plan to minimize the impact on traffic flow and keep traffic safe. Any such traffic management plan shall also identify any traffic-related noise concerns during the construction phase and develop measures that would address those noise concerns.
- 26. Thoroughbred Solar shall properly maintain construction equipment and follow best management practices related to fugitive dust throughout the construction process, including the use of water trucks. Dust impacts shall be kept at a minimal level. The Siting Board requires Thoroughbred Solar's compliance with 401 KAR 63:010.
- 27. If any Person as defined by KRS 278.700(3) shall acquire or transfer ownership of, or control, or the right to control Thoroughbred Solar, by sale of assets, transfer of stock, or otherwise, or abandon the same, Thoroughbred Solar or its successors or assigns shall request explicit approval from the Siting Board with notice of the request provided to the Hart County Fiscal Court. In any application requesting such abandonment, sale, or change of control, Thoroughbred Solar and any proposed entity with an ownership interest in Thoroughbred Solar shall certify its compliance with KRS 278.710(1)(i).
- 28. As applicable to individual lease agreements, Thoroughbred 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.

- 29. Thoroughbred Solar shall file a complete and explicit decommissioning plan with the Siting Board. This plan shall commit Thoroughbred Solar to remove all facility components, aboveground and belowground, 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.
- 30. Thoroughbred Solar shall file a bond with the Hart County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan naming Hart 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 Hart County will have the authority to draw upon the bond to effectuate the decommissioning plan. For land with no bonding requirement otherwise, Hart County shall be the primary beneficiary of the decommissioning bond for that portion of the Project. The bond shall be filed with the Hart 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 with an entity other than the Fiscal Court, through the Hart County Treasurer, can be evidenced by a letter from the Hart County Judge-Executive, the Hart County Fiscal Court, or the Hart 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 Thoroughbred 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 Hart 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.

- 31. Thoroughbred Solar or its assigns shall provide notice to the Siting Board, if, during any two-year (730 days) period, it replaces more than 20 percent of its facilities. Thoroughbred Solar shall commit to removing the debris and replaced facility components from the Project site and from Hart County upon replacement. If the replaced components are properly disposed of at a permitted facility, they do not have to be physically removed from Hart County. However, if the replaced facility components remain in the County, Thoroughbred Solar must inform the Siting Board of the location where the components are being disposed.
- 32. Any disposal or recycling of Project equipment, during operations or decommissioning, shall be done in accordance with applicable laws and requirements.
- 33. Thoroughbred 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. Thoroughbred Solar shall also submit annually a status report associated with its Complaint Resolution Program, providing, among other things, the individual complaints, how Thoroughbred Solar addressed those complaints, and the ultimate resolution of those complaints identifying whether the resolution was to the complainant's satisfaction.
- 34. Thoroughbred Solar shall provide the Hart County Planning & Development Commission contact information for individuals within the company that can be contacted

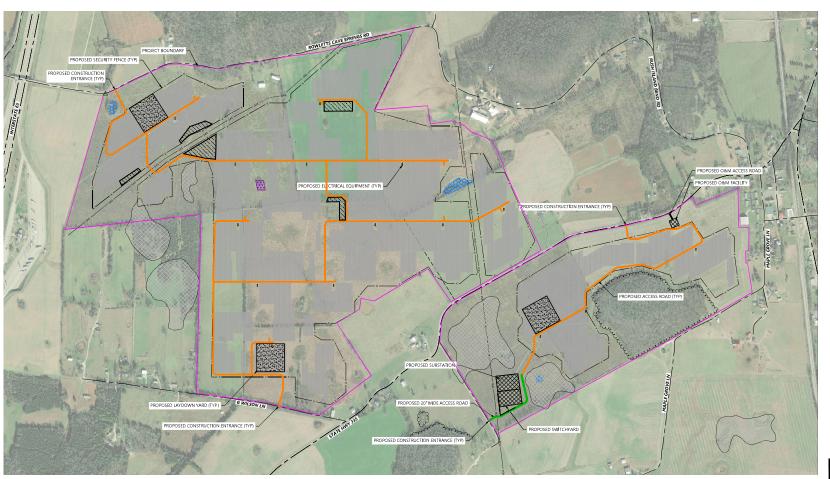
Appendix A Case No. 2022-00115 with concerns. This shall include contact information for the general public to reach individuals that can address their concerns. Thoroughbred Solar shall update this contact information yearly, or within 30 days of any change in contact information.

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

# APPENDIX B

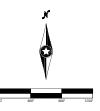
APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2022-00115 DATED APR 10 2023

ONE PAGE TO FOLLOW





6688 North Central Expressway, Suite 500 Dallas, TX 75206



# Thoroughbred **Solar Project**

Hart County, Kentucky

Conceptual Site Plan

#### NOT FOR CONSTRUCTION

10/07/2022

C300

LEGEND:

PROJECT BOUNDARY

DX TREELINE

SX OVERHEAD POWER

EX GAS PPELINE

CX GAS PPELINE

EX CADA CENTER LINE

EX CEMETERY

EX CEMETERY

PROPOSED SOLAR ARRAY PROPOSED SOLAR ARRAY
PROPOSED MODULE SETRACK
PROPOSED 16 ACCESS ROAD
PROPOSED 26 FACILITY ACCESS ROAD
PROPOSED SELURITY FENCE
PROPOSED SELURITY FENCE
PROPOSED SELECTION LINE
PROPOSED COLLECTION LI

| SYSTEM SPECI                   | FICATIONS                 |
|--------------------------------|---------------------------|
| DC System Size (MW)            | 61.20                     |
| AC System Size (MW) @ Inverter | 54.00                     |
| AC System Size (MW) @ POI      | 50.00                     |
| Module Model                   | First Solar Series 6 Plus |
| Module Rating (W)              | 480                       |
| Module Quantity                | 127,512                   |
| Inverter Rating (kVA)          | 3600                      |
| Inverter Quantity              | 15                        |
| GCR                            | 42%                       |
| DC/AC Ratio @ Inv.             | 1.13                      |
| DC/AC Ratio @ POI              | 1.22                      |
| Racking Type                   | Single-Axis Tracker       |
| Racking Configuration          | 1IP                       |
| Road Gap Spacing               | 40°                       |

\*Robert Sims 189 Redwood Way Mumfordville, KENTUCKY 42765

\*Dylan F. Borchers Bricker & Eckler 100 South Third Street Columbus, OHIO 43215

\*Greg Nichols Administrative Officer PO Box 490 Munfordville, KENTUCKY 42765

\*Sommer L. Sheely Bricker & Eckler 100 South Third Street Columbus, OHIO 43215