

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION  
AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF PINE GROVE	)	
SOLAR, LLC FOR A CERTIFICATE OF	)	
CONSTRUCTION FOR AN APPROXIMATELY 50	)	CASE NO.
MEGAWATT MERCHANT ELECTRIC SOLAR	)	2022-00262
GENERATING FACILITY IN MADISON COUNTY,	)	
KENTUCKY PURSUANT TO KRS 278.700 AND	)	
807 KAR 5:110	)	

ORDER

On December 1, 2022, Pine Grove Solar, LLC (Pine Grove 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 486 acres of land in Madison County, Kentucky.

There are no intervenors in this matter. Pursuant to a procedural schedule established on December 19, 2022, Pine Grove Solar responded to two rounds of discovery. A site visit was held on February 9, 2023. Siting Board consultant BBC Research and Consulting (BBC) filed its report (BBC Report) on March 31, 2023. Pine Grove Solar submitted its response to the BBC Report on April 7, 2023. A formal hearing was held on April 25, 2023. Pine Grove Solar filed its responses to post hearing requests for information on May 12, 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 Pine Grove 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 Pine Grove 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 Pine Grove Solar; and (8) whether Pine Grove Solar has good environmental compliance history.

### PROPOSED FACILITY

The Project will be located on 486 acres in an unincorporated area of Madison County near Richmond, Kentucky. The Project will contain approximately 120,000 solar photovoltaic panels with associated ground-mounted racking, 15 inverters, and a substation transformer. The Project will interconnect to a transmission line owned by Louisville Gas & Electric Company (LG&E) and Kentucky Utilities Company (KU) (collectively, LG&E/KU).

### DISCUSSION AND FINDINGS

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

##### Mitigation Measures Proposed by Pine Grove Solar and Siting Board Consultant

As required by KRS 278.708(4), Pine Grove Solar proposed various mitigation measures consistent with the statutes regarding traffic, noise, roadway preservation, permitting, setbacks, public safety, and decommissioning.<sup>1</sup> In accordance with KRS 278.708(5), BBC recommended mitigation measures in the 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>2</sup>

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<sup>1</sup> Application, Attachment I, Site Assessment Report (SAR) at 8–12.

<sup>2</sup> BBC Report, Executive Summary, B-7–B-10 (filed Mar. 31, 2023).

Pine Grove Solar generally agreed with the mitigation measures recommended by BBC.<sup>3</sup> Pine Grove Solar requested the recommendation that a security fence be installed prior to construction be changed to require installation prior to energization of the project.<sup>4</sup> Pine Grove Solar stated the recommendation regarding the planting of vegetation should be limited to six feet instead of BBC's eight feet recommendation within four years of planting.<sup>5</sup> Finally, Pine Grove Solar stated there should be no additional mitigation, other than time of day restrictions, on noise causing activity because any other mitigation is unlikely to provide any additional noise suppression.<sup>6</sup>

The Siting Board has reviewed the mitigation measures proposed by Pine Grove Solar and BBC, and finds that, in addition to those Pine Grove 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 BBC 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

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<sup>3</sup> Pine Grove Solar's Response to BBC Site Assessment Review (filed Apr. 7, 2023).

<sup>4</sup> Pine Grove Solar's Response to BBC Site Assessment Review at 2.

<sup>5</sup> Pine Grove Solar's Response to BBC Site Assessment Review at 2–4.

<sup>6</sup> Pine Grove Solar's Response to BBC Site Assessment Review at 4–5.

structures; (5) location and use of access ways, internal roads, and railways; and (6) existing or proposed utilities to service the facility.

Pine Grove Solar submitted the required SAR with its application.<sup>7</sup> The application contained a site plan, which was updated during the proceedings.<sup>8</sup> The site plan included existing roadways, project boundaries, transmission lines, gas pipelines, proposed solar array, proposed access roads, facility entrances, wetland features, setbacks, proposed fencing, proposed substation location, and proposed switchyard location.<sup>9</sup> Pine Grove Solar provided the location of actual and possible karst features within and surrounding the proposed project site.<sup>10</sup> Proposed vegetative screening plans were included in the SAR.<sup>11</sup> The legal boundaries of the proposed site are contained in the application and in maps of tax parcels.<sup>12</sup> Currently, the leases for the property the Project will be sited on are held by Sustainable Property Holdings, LLC.<sup>13</sup>

A fence meeting the National Electric Safety Code (NESC) requirement is proposed to surround the project.<sup>14</sup> The Project's substation and switchyard will be separately enclosed by fencing.<sup>15</sup> Pine Grove Solar does not anticipate requiring auxiliary

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<sup>7</sup> Application, SAR.

<sup>8</sup> Pine Grove Solar's Responses to Siting Board Staff's First Request for Information (Pine Grove Solar's Response to Staff's First Request) (filed Feb. 6, 2023), Item 1, Exhibit 1-3.

<sup>9</sup> Pine Grove Solar's Response to Staff's First Request, Item 1, Exhibit 1-3.

<sup>10</sup> Application, Attachment B.

<sup>11</sup> Application, Attachment B.

<sup>12</sup> Application, SAR, Appendix C.

<sup>13</sup> Hearing Video Testimony (HVT) of the April 25, 2023 Hearing at 11:50:59.

<sup>14</sup> Application, SAR at 2.

<sup>15</sup> Application, SAR at 2.

power during construction or operation. If auxiliary power is needed, it will be received from KU.<sup>16</sup>

The surrounding area is primarily rural agricultural land. The land use in the area is 32 percent agricultural, 53 percent agricultural/residential, and approximately 15 percent residential.<sup>17</sup> There are no residential neighborhoods, schools, public or private parks, or healthcare facilities within two miles of the Project's radius.<sup>18</sup>

Having reviewed the record of this proceeding, the Siting Board finds that Pine Grove 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 Pine Grove Solar keep the Siting Board apprised of changes throughout the development of the Project and, as such, will order Pine Grove 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 Sustainable Property Holdings, LLC to assign the leases to Pine Grove 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. This assignment is a condition precedent to receiving the Construction Certificate.

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<sup>16</sup> Application, SAR, Section 1.6

<sup>17</sup> BBC Report, Executive Summary, at B-2.

<sup>18</sup> Application at 4.

Furthermore, based on the findings and proposals of the BBC 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

Pine Grove Solar indicated the Project site is in an agricultural and rural residential area of Madison County.<sup>19</sup> The view will be impacted primarily by solar panels.<sup>20</sup> Pine Grove Solar indicated it will mitigate the visual impacts of the facility by the topography of the land, vegetative buffers, and dense trees that already surround the area.<sup>21</sup> Pine Grove Solar completed a glare study that concluded some glare is possible, but no green or yellow glare will be present.<sup>22</sup> BBC reviewed the SAR and found the project will be compatible with scenic surroundings mitigation measures proposed by Pine Grove Solar and BBC.<sup>23</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 Pine Grove Solar and BBC, 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 Pine Grove Solar. Those are set forth in Appendix A to this Order and, in particular, mitigation measures 9 through 13.

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<sup>19</sup> Application, SAR at 4.

<sup>20</sup> Application, SAR at 4.

<sup>21</sup> Application, SAR at 4.

<sup>22</sup> Application, Attachment B.

<sup>23</sup> BBC Report, Detailed Findings and Conclusions, C-22.

### Impact on Property Values

Pine Grove Solar submitted a property value impact report from Kirkland Appraisals (Kirkland Report), a certified real estate appraiser.<sup>24</sup> The Kirkland Report found that, based upon a comparative analysis, the solar facility will have no impact on the property values of abutting or adjacent residential or agricultural properties.<sup>25</sup> The report indicated that the solar facility would function in a harmonious manner with the nearby surroundings, which are 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 facilities.<sup>26</sup>

BBC concluded that because the Project area is predominantly rural and the Project's proposed vegetative buffers will help conceal the physical view of the Project from nearby residences, the proposed Project is unlikely to have a measurable adverse impact on the property values of most adjacent properties.<sup>27</sup> BBC stated the property values of some adjacent residential properties with small lots in closest proximity to the solar panels, might be at risk of a reduction in value.<sup>28</sup>

Having reviewed the record, the Siting Board finds that sufficient evidence to conclude that the proposed Pine Grove Solar facility will not have any significant adverse impact on nearby property values as long as proper mitigation measures are

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<sup>24</sup> Application, SAR, Appendix A.

<sup>25</sup> Application, SAR, Appendix A at 2.

<sup>26</sup> Application, SAR, Appendix A at 2 and 122.

<sup>27</sup> BBC Report, Detailed Findings and Conclusions at C-28.

<sup>28</sup> BBC Report, Detailed Findings and Conclusions at C-28.

implemented. The characteristics of the solar facility's operations are passive, 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

Pine Grove's Acoustic Assessment Report was completed by Tetra Tech, Inc (Tetra).<sup>29</sup> Construction of the Project will be conducted in phases beginning with site preparation and progressing to installation of equipment.<sup>30</sup> Tetra used representative sound levels to evaluate the project from the United States Environmental Protection Agency (EPA).<sup>31</sup> The EPA determined that 55 dBA is the maximum sound level that will not adversely affect health and welfare by interfering with speech and other outdoor activities.<sup>32</sup> Tetra estimated maximum equipment noise level during construction will occur during pile driving and is estimated at 106 dBA at 50 feet.<sup>33</sup> Based upon the projected placement of project components and the boundary lines of nearby properties, it is anticipated that no residence will experience sound near the 106 dBA level because all residences are over 200 feet from project components.<sup>34</sup> Tetra made several recommendations to mitigate construction noise, including limiting the days of the weeks

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<sup>29</sup> Application, SAR, Appendix D.

<sup>30</sup> Application, SAR, Appendix D at 7.

<sup>31</sup> Application, SAR, Appendix D at 4.

<sup>32</sup> Application, SAR, Appendix D at 4.

<sup>33</sup> Application, SAR, Appendix D at 6.

<sup>34</sup> Pine Grove Solar's Response to Staff's First Request, Exhibit 1-27 and Pine Grove Solar's Response to Siting Board Staff's Second Request for Information (Response to Staff's Second Request) (filed Mar. 17, 2023), Item 2.

and the times Pine Grove Solar should conduct noise causing activity.<sup>35</sup> Pine Grove Solar stated that it believes noise mitigation can be achieved with time of day limits only.<sup>36</sup>

During the operations phase of the Project, Tetra found noise will emanate from project inverters and the power transformer.<sup>37</sup> Tetra used the EPA standard of 55 dBA to evaluate operational noise.<sup>38</sup> Tetra found the highest operational sound at any residence would be 49 dBA and would comply with the EPA standards.<sup>39</sup> Tetra concluded the operational noise will remain low and is consistent with other solar energy facilities of a similar size.<sup>40</sup>

BBC evaluated the noise study conducted by Tetra. BBC concluded that the construction phase of the Project, specifically pile driving, will have the highest noise levels.<sup>41</sup> BBC concluded the nearest residence could experience sound at 96 dBA during pile driving, which could reach a hazardous level if the noise lasted for more than 45 minutes per day.<sup>42</sup> BBC recommended several mitigation measures to limit the noise during construction.<sup>43</sup>

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<sup>35</sup> Application, SAR, Appendix D at 6.

<sup>36</sup> Pine Grove Solar's Response to BBC Site Assessment Review at 4

<sup>37</sup> Application, SAR, Appendix D at 10.

<sup>38</sup> Application, SAR, Appendix D at 12.

<sup>39</sup> Application, SAR, Appendix D at 16.

<sup>40</sup> Application, SAR, Appendix D at 12.

<sup>41</sup> BBC Report, Executive Summary at B-5.

<sup>42</sup> BBC Report, Detailed Findings and Conclusions at C-38.

<sup>43</sup> BBC Report, Detailed Findings and Conclusions at C-39.

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 Pine Grove Solar and BBC, 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 inverters and the main transformer should have little-to-no effect on residences in the area.

Based on the case record, the Siting Board finds that Pine Grove'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, Pine Grove Solar should be required to implement specific mitigation measures to ensure the impact of construction noise does not unduly impact nearby residents. The Siting Board is not convinced by Pine Grove Solar's argument that the only mitigation necessary, or that will be effective, for construction noise is time of day restrictions. 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 will require Pine Grove to mitigate construction noise up to 1,000 feet to ensure the surrounding community is not negatively impacted by the construction noise. Pine Grove 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 anticipated to take eight to ten months.<sup>44</sup> During that time there will be intermittent and temporary impacts on traffic flow around the Project.<sup>45</sup> Kentucky 52, Brassfield Road, and Pine Grove Road will have the largest increase in traffic volume during construction.<sup>46</sup> Pine Grove Solar indicated it anticipates the roads will have ample capacity to accommodate construction traffic.<sup>47</sup> The intersection of Brassfield Road and Pine Grove Road need additional studies to determine if it will need to be widened to receive large deliveries during construction.<sup>48</sup> There is no railway in the Project area.<sup>49</sup>

The BBC Report concluded the construction phase of the Project would substantially increase traffic in the area.<sup>50</sup> BBC noted that the weight and size of large construction deliveries could pose issues to the roads in the area.<sup>51</sup> BBC recommended close coordination with state and local road departments to ensure appropriate traffic management plans are in place.<sup>52</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>53</sup>

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<sup>44</sup> HVT of the Apr. 25, 2023 Hearing at 09:54:27.

<sup>45</sup> Application, SAR at 7.

<sup>46</sup> Application, SAR, Appendix F at 2.

<sup>47</sup> Application, SAR, Appendix F at 2.

<sup>48</sup> Pine Grove Solar's Response to Staff's Second Request, Item 5.

<sup>49</sup> BBC Report, Executive Summary at B-5.

<sup>50</sup> BBC Report, Detailed Findings and Conclusions at C-43.

<sup>51</sup> BBC Report, Detailed Findings and Conclusions at C-43.

<sup>52</sup> BBC Report, Detailed Findings and Conclusions at C-43.

<sup>53</sup> Application, SAR at 7.

The Siting Board finds that traffic and road degradation issues can be addressed with Pine Grove Solar's mitigation measures, the additional mitigation measures proposed by BBC, 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. Pine Grove Solar stated it will mitigate the dust from construction by revegetation, covering soil piles, and application of water as necessary.<sup>54</sup> 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 Pine Grove 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**

Pine Grove Solar estimated the Project will invest over \$70 million in Madison County, Kentucky.<sup>55</sup> The project is expected to generate significant positive economic and fiscal impacts to Madison County; including the creation of hundreds of construction jobs, expansion of the local tax base, and the benefits of having a long-term employer and corporate citizen in the region.<sup>56</sup>

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<sup>54</sup> Application, SAR at 7.

<sup>55</sup> Application, Attachment H at 1-2.

<sup>56</sup> Application, Attachment H.

Pine Grove Solar's economic consultant, Dr. Paul A. Coomes, used the Impact Analysis for Planning (IMPLAN) model to conduct an economic impact analysis for Madison County.<sup>57</sup> During Project construction, Pine Grove Solar estimated that approximately 120 temporary, full time jobs will be created with a direct payroll of approximately \$8.6 million.<sup>58</sup> The average salary for the construction jobs is anticipated to be approximately \$71,700, compared to the Madison County 2020 average annual wage of \$42,363.<sup>59</sup> The indirect and induced economic impacts are estimated to contribute another 45 jobs with an additional \$3 million in payroll.<sup>60</sup> The total construction phase economic impact is estimated to be 165 total full-time equivalent jobs in Madison County with a new payroll of \$11.6 million.<sup>61</sup>

Pine Grove Solar is not anticipating an Industrial Revenue Bond (IRB) and a Payment in Lieu of Taxes (PILOT) Agreement with Madison County.<sup>62</sup> Absent these agreements, Pine Grove Solar estimated it will pay property taxes to local governments of \$116,000 during the first year of the project and \$6.01 million over the project's life.<sup>63</sup> The estimated property tax payments would average \$172,000 annually instead of the current \$2,100 per year in property taxes the property generates now as agricultural

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<sup>57</sup> Application, Attachment H at 2-3.

<sup>58</sup> Application, Attachment H at 2 and 4.

<sup>59</sup> Application, Attachment H at 4.

<sup>60</sup> Pine Grove Solar's Response to Staff's First Request, Item 21.

<sup>61</sup> Application, Attachment H at 4. *Also, see Pine Grove Solar's Response to Staff's First Request, Item 21.*

<sup>62</sup> Pine Grove Solar's Response to Staff's First Request, Item 26.

<sup>63</sup> Application, Attachment H at 7.

land.<sup>64</sup> Pine Grove Solar estimated the Project will generate \$566,000 in income taxes and \$464,000 in sales taxes for the state of Kentucky.<sup>65</sup>

The ongoing economic impact from the project's operational phase is estimated to be very small relative to the one-time impacts from the construction phase. The ongoing operational phase of the project is expected to modestly support one or two jobs.<sup>66</sup>

BBC evaluated the economic impact of the project.<sup>67</sup> BBC concluded that the modest impact from the operational phase of the project is consistent with the findings of other commercial solar economic impact studies and that the largest impact will be during the construction phase.<sup>68</sup> BBC noted Pine Grove Solar could have presented more statewide evidence for a more complete picture of the economic impact of the project, however even without that statewide review the project will have a positive economic impact.<sup>69</sup>

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

#### Existence of Other Generating Facilities

Pine Grove Solar indicated there are no existing facilities near the proposed site that generate electricity.<sup>70</sup> Pine Grove Solar stated that the Project was sited in a location

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<sup>64</sup> Application, Attachment H at 7.

<sup>65</sup> Pine Grove Solar's Response to Staff's First Request, Item 23.

<sup>66</sup> Application, Attachment H at 6.

<sup>67</sup> See BBC Report, Executive Summary.

<sup>68</sup> BBC Report, Executive Summary, at B-6.

<sup>69</sup> BBC Report, Executive Summary, at B-6–B-7.

<sup>70</sup> Application at 12.

with proximity to existing transmission infrastructure,<sup>71</sup> and that the Project will tap into a transmission line owned by KU.<sup>72</sup>

### Local Planning and Zoning Requirements

Madison County Fiscal Court Ordinance 20-17 requires solar facilities that are proposed to be built on agricultural land to receive a Conditional Use Permit (CUP) before construction can begin.<sup>73</sup> Pine Grove Solar received a CUP from the Madison County Board of Adjustments on September 22, 2022.<sup>74</sup> The Siting Board finds that the Project appears to comply with the CUP.

### Impact on Transmission System

The Project is located within the territory of LG&E/KU.<sup>75</sup> Pine Grove Solar applied for interconnection with LG&E/KU.<sup>76</sup> It was determined a Feasibility Study was not required for the Project.<sup>77</sup> A System Impact Study and Facilities Study were completed.<sup>78</sup> Pine Grove Solar will be responsible for any costs associated with interconnection prior to LG&E/KU to completing any of the upgrades.<sup>79</sup>

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<sup>71</sup> Application at 12.

<sup>72</sup> Application at 12.

<sup>73</sup> Madison County Kentucky, <https://madisoncountky.us/index.php/component/phocadownload/file/625-20-17-commercial-solar-energy-facilities-in-the-land-use-regulations> (last visited May 12, 2023).

<sup>74</sup> Application at 7. See Application, Attachment D for the full Certificate of Land Use Restriction issued by the Madison County Board of Adjustments.

<sup>75</sup> Application at 14.

<sup>76</sup> Application at 14.

<sup>77</sup> Application at 14.

<sup>78</sup> Application at 14. See Application, Attachment G for the complete System Impact Study and Facilities Study.

<sup>79</sup> Application at 14.

Based upon the case record, the Siting Board finds that Pine Grove 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 Pine Grove 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 Pine Grove Solar's commitment to the interconnection process and protocols consistent with the requirements of KRS 278.212.

Pine Grove Solar filed a request for a declaratory order that the project does not require a separate application nonregulated transmission line because the transmission line proposed is an ancillary project for the proposed solar facility.<sup>80</sup> Pine Grove Solar indicated the entirety of the transmission line will be located on one parcel of property that is to be used in the project.<sup>81</sup> The transmission line will be a maximum of 150 feet in length and interconnect with a new LG&E/KU substation, which is located on the same parcel of property.<sup>82</sup> The Siting Board finds Pine Grove Solar's motion for a declaratory order should be granted and the transmission line proposed is approved. The transmission line is very short and is contained within parcels of property to be used for the Project.

#### Compliance with Setback Requirements

The Project is subject to local setback requirements. Therefore, Pine Grove Solar has not requested a deviation, pursuant to KRS 278.704, from the statutory setback

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<sup>80</sup> Pine Grove Solar's Motion for Declaratory Order (filed Dec. 21, 2023).

<sup>81</sup> Pine Grove Solar's Motion for Declaratory Order at 2.

<sup>82</sup> Pine Grove Solar's Motion for Declaratory Order at 2.

requirements for the Project. The CUP established setbacks for the project of 100 feet from the center of any road; 100 feet between the solar facility and any adjacent nonparticipating property; and 200 feet between the solar facility and any adjacent property which contains a residence.<sup>83</sup> Pine Grove Solar confirmed there is approximately 700 feet from any residence and any project component.<sup>84</sup> Nevertheless, the Siting Board finds that Pine Grove Solar shall not place solar panels or string inverters if used, closer than 150 feet from a residence, church, or school, 25 feet from nonparticipating adjoining parcels, and 50 feet from adjacent roadways. Pine Grove 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 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. Pine Grove Solar stated that neither it, nor anyone with an ownership interest in it, has violated any environmental laws, rules, or administrative regulations that resulted in criminal confiscation, or a fine greater than \$5,000.<sup>85</sup> Further Pine Grove Solar is not the subject of any pending judicial or administrative actions.<sup>86</sup>

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<sup>83</sup> Application at 7 and Application, Exhibit D.

<sup>84</sup> HVT of the Apr. 25, 2023 Hearing at 11:36:25.

<sup>85</sup> Application at 16.

<sup>86</sup> Application at 16 and Pine Grove Solar's Response to Siting Board Staff's Post-Hearing Request for Information (filed May 12, 2023), Item 3.

### 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>87</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, Pine Grove 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 Pine Grove Solar, the Person seeking and being granted, with conditions, the Construction Certificate in this matter. Without knowledge of who is providing the resources and employees to Pine Grove 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

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<sup>87</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.

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

Pine Grove Solar submitted a decommissioning plan with the application.<sup>88</sup> The decommissioning plan requires decommissioning to a depth of four feet.<sup>89</sup> Pine Grove Solar indicated this depth will fully remove all project components and restore the land to the original condition.<sup>90</sup>

The Siting Board finds that Pine Grove 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 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

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<sup>88</sup> Application, SAR, Appendix G.

<sup>89</sup> Application, SAR, Appendix G.

<sup>90</sup> Application, SAR, Appendix G.

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

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that Pine Grove 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. Pine Grove Solar's application for a Construction Certificate to construct an approximately 50 MW merchant solar electric generating facility in Madison County, Kentucky is conditionally granted subject to full compliance with the mitigation measures and conditions prescribed in Appendix A.
2. Pine Grove Solar shall fully comply with the mitigation measures and conditions prescribed in Appendix A.
3. Pine Grove Solar's request for a declaratory order finding no application is necessary for the nonregulated transmission line proposed for the solar facility is granted.

4. Sustainable Property Holdings, LLC shall assign the leases for the property where the Project is to be sited to Pine Grove 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 prescribed in Appendix A, 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]

KENTUCKY STATE BOARD ON ELECTRIC  
GENERATION AND TRANSMISSION SITING

*Kent Cook*

Chairman, Public Service Commission

*John*

Vice Chairman, Public Service Commission

*Mary Pat Regan/AH with permission*

Commissioner, Public Service Commission

*John Lewis*

Secretary, Energy and Environment Cabinet,  
or her designee

*Sydney Montgomery*

Secretary, Cabinet for Economic Development,  
or his designee

*Bert Thomas*

Bert Thomas, ad hoc member

*Richard Thomas*

Richard Thomas, ad hoc member

*by KAC  
w/permission*

ATTEST:

*Linda C. Bridwell*

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. 2022-00262 DATED MAY 26 2023

#### MITIGATION MEASURES AND CONDITIONS IMPOSED

The following mitigation measures and conditions are hereby imposed on Pine Grove Solar, LLC (Pine Grove 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. Pine Grove 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, Pine Grove Solar shall provide a finalized Emergency Response Plan to the local fire district, first responders, and any County Emergency Management Agency. Pine Grove 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. Pine Grove 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. Pine Grove Solar's access control strategy shall also include appropriate signage to warn potential trespassers. Pine Grove 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. Pine Grove 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. Pine Grove 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 Pine Grove Solar between Project infrastructure and residences, or other occupied structures, with a line of sight to the

facility to the reasonable satisfaction of the affected adjacent property owners. Planting of vegetative buffers may be done over the construction period; however, Pine Grove 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. Pine Grove Solar shall cultivate at least two acres of native, pollinator friendly species on-site.

12. Pine Grove 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, Pine Grove Solar shall replace plantings as necessary.

13. To the extent that an affected adjacent property owner indicates to Pine Grove Solar that a visual buffer is not necessary, Pine Grove Solar will obtain that property owner's written consent and submit such consent in writing to the Siting Board.

14. Pine Grove 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.

15. If the pile-driving activity occurs within 1,000 feet of a noise-sensitive receptor, Pine Grove 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). Pine Grove 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. Pine Grove 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. Pine Grove 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, as well as the Madison County Conditional Use Permit. However, Pine Grove 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. Pine Grove 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. Pine Grove 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. Pine Grove Solar shall comply with all laws and regulations regarding the use of roadways.

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

22. Pine Grove Solar shall consult with the Madison County Road Department (MCRD) regarding truck and other construction traffic and obtain any necessary permits from the MCRD.

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

24. Pine Grove Solar shall comply with any road use agreement executed with MCRD. Such an agreement might include special considerations for overweight loads, routes utilized by heavy trucks, road weight limits, and bridge weight limits.

25. Pine Grove 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. Pine Grove 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 Pine Grove 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 Pine Grove Solar, by sale of assets, transfer of stock, or otherwise, or abandon the same, Pine Grove Solar or its successors or assigns shall request explicit approval from the Siting Board with notice of the request provided to the Madison County Fiscal Court. In any application requesting such abandonment, sale, or change of control, Pine Grove Solar and any proposed entity with an ownership interest in Pine Grove Solar shall certify its compliance with KRS 278.710(1)(i).

28. As applicable to individual lease agreements, Pine Grove 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. Pine Grove Solar shall file a complete and explicit decommissioning plan with the Siting Board. This plan shall commit Pine 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.

30. Pine Grove Solar shall file a bond with the Madison County Fiscal Court, equal to the amount necessary to effectuate the explicit or formal decommissioning plan naming Madison 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 Madison County will have the authority to draw upon the bond to effectuate the decommissioning plan. For land with no bonding requirement otherwise, Madison County shall be the primary beneficiary of the decommissioning bond for that portion of the Project. The bond shall be filed with the Madison 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 Madison County Treasurer, can be evidenced by a letter from the Madison County Judge-Executive, the Madison County Fiscal Court, or the Madison 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 Pine Grove 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 Madison 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. Pine Grove 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.

Pine Grove Solar shall commit to removing the debris and replaced facility components from the Project site and from Madison County upon replacement. If the replaced components are properly disposed of at a permitted facility, they do not have to be physically removed from Madison County. However, if the replaced facility components remain in the County, Pine Grove 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. Pine Grove 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. Pine Grove Solar shall also submit annually a status report associated with its Complaint Resolution Program, providing, among other things, the individual complaints, how Pine Grove Solar addressed those complaints, and the ultimate resolution of those complaints identifying whether the resolution was to the complainant's satisfaction.

34. Pine Grove Solar shall provide the Madison County Planning & Development Commission contact information for individuals within the company that can be contacted with concerns. This shall include contact information for the general public to reach individuals that can address their concerns. Pine Grove Solar shall update this contact information yearly, or within 30 days of any change in contact information.

35. Within 30 days of entry, Pine Grove 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. 2022-00262 DATED MAY 26 2023

ONE PAGE TO FOLLOW



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